

Supreme Court, U. S.

FILED

MAY 19 1977

APPENDIX

MICHAEL RODAK, JR., CLERK

In the
SUPREME COURT of the UNITED STATES

October Term, 1976

No. 76-558

RAYMOND MOTOR TRANSPORTATION, INC.,
a Minnesota Corporation

and

CONSOLIDATED FREIGHTWAYS CORPORATION
OF DELAWARE
a Delaware Corporation,

Appellants,

vs.

ZEL S. RICE, ROBERT T. HUBER, JOSEPH
SWEDA, REBECCA YOUNG, WAYNE VOLK,
LEWIS V. VERSNIK, and BRONSON C.
LA FOLLETTE,

Appellees.

*On Appeal From The United States District Court
For The Western District of Wisconsin*

APPEAL DOCKETED [REDACTED], 1976
JURISDICTION NOTED MARCH 7, 1977

APPENDIX

In the
SUPREME COURT of the UNITED STATES
October Term, 1976

No. 76-558

RAYMOND MOTOR TRANSPORTATION, INC.,
a Minnesota Corporation

and

CONSOLIDATED FREIGHTWAYS CORPORATION
OF DELAWARE
a Delaware Corporation,

Appellants,

vs.

ZEL S. RICE, ROBERT T. HUBER, JOSEPH
SWEDA, REBECCA YOUNG, WAYNE VOLK,
LEWIS V. VERSNIK, and BRONSON C.
LA FOLLETTE,

Appellees.

On Appeal From The United States District Court
For The Western District of Wisconsin

INDEX

Opinion Below	1
Docket Entries	2
Complaint	3
Original Answer	22
Pre-Trial Conference Memorandum	25
Amended Answer	26
Stipulation As To Evidentiary Record	29
Deposition of Kenneth L. Pierson	30
(Deputy Director, Bureau of Motor Commerce Safety, U.S. Department of Transportation) Exhibit 2-Safety Comparison of Doubles v. Tractor Semi- Trailer Operation.	41
Deposition of Ernest G. Cox	42
(Ret. Deputy Director, Bureau of Motor Commerce Safety, U.S. Department of Transportation)	
Deposition of A.S. Cooper	53
(Commissioner, California High- way Patrol)	
Deposition of Colonel James C. Crawford	63
(Chief, Minnesota State Patrol)	
Deposition of Francis C. Marshall	70

ii.

(Assistant Commissioner, Minnesota Department of Highways)	
Deposition of James Karns	74
(Ret. Wisconsin Motor Vehicle Commissioner)	
Deposition of Claud R. McCamment	76
(Ret. Safety Director, Kansas State Highway Commissioner)	
Deposition of Fred J. Myers	85
(Professional Engineer)	
Exhibit 1-Qualifications	103
Exhibit 3-California Braking Test	106
Exhibit 4-Recommended Policy on Maximum Dimensions and Weights to be Operated over the Highways of the United States (American Association of State Highway and Transportation Officials).	107
Deposition of Thurman D. Sherard	108
(Civil Engineer)	
Exhibit 2-Splash and Spray Characteristics of Trucks and Truck Combinations	134
Deposition of Archie H. Easton	137

iii.

(Professor of Mechanical Engineering, University of Wisconsin)	
Deposition of Leon S. Robertson	148
(Senior Behavioral Scientist, Insurance Institute for Highway Safety)	
Affidavit of Myron E. Bothun	154
(General Counsel, North Dakota Highway Department)	
Affidavit of Dennis Eisnach	156
(Superintendent, South Dakota Highway Patrol)	
Affidavit of Joe E. Sol	157
(Chief, Montana Highway Patrol Bureau)	
Affidavit of Colonel F.J. Wickam	159
(Director, Wyoming Highway Patrol)	
Affidavit of Ray Lower	161
(Highway Transportation Officer, Idaho Transportation Department)	
Affidavit of Capt. R.E. Sherman	163
(Weight Control Officer, Washington State Patrol)	
Affidavit of Robert Hamilton	164

iv.

(Permit Director, Oregon Highway Department)	
Affidavit of John C. Amthor	166
(Commanding Officer, Safety and Traffic Division, Michigan State Police)	
Affidavit of Robert W. Patton	167
(Staff Maintenance Superintendent Colorado Department of Highways)	
Affidavit of Earl W. Henneman	170
(Director of Operation and Maintenance, Chippewa Motor Freight, Inc.)	
Plaintiff's Request for Admissions	172
Exhibit PA-1-Mobile Home Annual Permits	178
Exhibit PA-2-Vehicle Transporta- tion Annual Permits	179
Exhibit PA-3-General Annual Permit	180
Exhibit PA-4-Single Trip General Permits	181
Defendant's Response to Request for Admissions	182
Affidavit of Peter Gove	183

v.

(Executive Director, Minnesota Pollution Control Agency)	
Deposition of Wayne Volk	185
(Chief Traffic Engineer, Wisconsin Department of Transportation)	
Exhibit 1-Memo to Robert Huber	218
Exhibit 4-Letter to Commissioner Pudinski	222
Exhibit 9-Letter re: Applicatio for Industrial Interplant Permit Jos. Schlitz Brewing Company	228
Exhibit 11-Approval of Annual Permit for Industrial Inter- plant Operation	230
Exhibit 20-Letter re: Application for Industrial Interplant Permit, Carver Boat Corp.	232
Exhibit 21-Letter from Godfrey Conveyor Co.; letter to Godfrey Conveyor Co.	235
Deposition of Robert Huber	237
(Chairman, Wisconsin State Highway Commission)	
Deposition of Robert R. Weaver	252

(Permit Supervisor, Wisconsin Department of Transportation)	
Exhibit 5-Memo to G.T. Landsness	261
Affidavit of J.A. Flippin	272
(Licensing Supervisor, Janesville Auto Transport Company)	
Appendix JAF-B-Operating Statistics	275
Appendix JAF-A-Photograph	276
Stipulation As To Additional Evidence	277
Map	278
Affidavit of Robert F. Hemphill, Jr.	279
(Associate Assistant Admini- strator for Transportation Programs, Federal Energy Administration)	
Sworn Testimony of R.E. Wrightson	287
(Director of Corporate Planning, Consolidated Freightways Corpor- ation of Delaware)	
Table 1-Projected Annual Cost Burden	290
Sworn Testimony of John A. Ebeling	305
(Vice President, Central Area, Consolidated Freightways Cor-	

poration of Delaware)	
Table I-1974 Operating Statistics	316
1975 Operating Statistics	317
Table II-1974 Operating Statistics	319
1975 Operating Statistics	320
Table III-Interlining and Interchanging Statistics	322
Sworn Testimony of Andrew N. Happer	351
(Research Analyst, Middlewest Motor Freight Bureau, Inc.)	
Sworn Testimony of Arnold J. Foslien	360
(Vice President of Raymond Motor Transportation, Inc.)	
Table-Weight of Individual Shipments	363

OPINION BELOW

[The Opinion of the District Court was printed in the Appendix to the Jurisdictional Statement, and is omitted from this Appendix.]

CHRONOLOGICAL LIST OF
RELEVANT DOCKET ENTRIES

April 21, 1975 - Plaintiffs Raymond Motor Transportation and Consolidated Freightways filed their Complaint, Motion for Preliminary Injunction and Motion to Convene Three-Judge Court in the U.S. District Court for the Western District of Wisconsin.

May 19, 1975 - Defendants' Original Answer filed.

May 22, 1975 - Pretrial Conference.

June 17, 1975 - Defendants' Amended Answer filed.

November 19, 1975 - Stipulation as to Evidentiary Record entered into by parties.

March 18, 1976 - Oral Arguments on the Merits heard by three-Judge Court.

August 13, 1976 - Judgment entered denying Plaintiffs' requests for preliminary and permanent injunctive relief and for declaration judgment; case was dismissed.

September 29, 1976 - Plaintiffs notice of appeal filed.

COMPLAINT
[Caption Omitted in Printing]

NOW COME the Plaintiffs, Raymond Motor Transportation, Inc., a Minnesota corporation, and Consolidated Freightways Corporation of Delaware, a Delaware corporation, by their attorneys, DeWitt, McAndrews & Porter, S.C., and for a Complaint against the above-named Defendants allege as follows:

I.

NATURE OF ACTION

1. This is an action for an injunction and a declaratory judgment holding that Wisconsin's state-wide prohibition against 65 foot twin-trailer combinations on the Federal Interstate Highway System violates the Commerce Clause and the Equal Protection Clause of the United States Constitution. More specifically, this Complaint seeks a declaration that §HY 30.14(3)(a), Wisconsin Administrative Code, constitutes an undue burden on interstate commerce to the extent that it makes illegal on Interstates 94 and 90 in Wisconsin, the 65 foot twin-trailers used on the entire length of Interstate 94 and connecting routes in all other

states from Detroit to the Pacific Northwest. This action is limited to the use of twin-trailers by Plaintiffs on interstate super-highways for general commodity shipments in interstate commerce only. The Complaint does not seek operation of twin-trailers on two lane highways or in local commerce.

As

[2]

more fully appears hereafter, Wisconsin unreasonably discriminates against Plaintiffs by routinely allowing other 65 foot combinations, such as automobile trailers transporting new and used cars, on Wisconsin highways including two lane and four lane highways, limited as well as unlimited access highways, and state trunk and interstate highways. 65 foot twin-trailer combinations are safer than single semi-trailer combinations presently allowed on Wisconsin highways.

II.

JURISDICTION

2. Jurisdiction of this Court is invoked pursuant to 28 U.S.C. §1331, 28 U.S.C. §1332, 28 U.S.C. §1343, 42 U.S.C. §1983, and 28 U.S.C. §2201-02 relating to declaratory judgments. This action arises under the Constitution and laws of the

United States. The amount in controversy as to each Plaintiff exceeds the sum of \$10,000 exclusive of interest and costs. This controversy is wholly between citizens of different states of the United States.

III.

PARTIES

3. Plaintiff Raymond Motor Transportation, Inc., is a Minnesota corporation with its principal place of business at 1912 Broadway, N.E., Minneapolis, Minnesota 55413, and is a citizen of the United States and the State of Minnesota.

4. Plaintiff Consolidated Freightways Corporation of Delaware is a Delaware corporation with its principal place of business at 175 Linfield Drive, Menlo Park, California 94025, and is a citizen of the United States and of the State of Delaware.

5. Defendant Zel S. Rice is a citizen of the State of Wisconsin and resides at 4833 Sheboygan Avenue, Madison, Wisconsin 53705. Defendant Rice is Secretary of the Department of Transportation of the State of Wisconsin and is sued individually and in his official capacity. Upon information and belief, his duties include supervision, in whole or

in part, of employees of the Wisconsin Department of Transportation who are responsible for issuing permits for the operation of vehicle combinations exceeding 55 feet in length.

[3]

6. Defendant Robert T. Huber is a citizen of the State of Wisconsin and resides at 2228 South 78th Street, West Allis, Wisconsin 53219. Defendant Huber is the Chairman of the Wisconsin Highway Commission and is sued individually and in his official capacity. His duties include issuing annual permits for the operation of vehicle combinations exceeding 55 feet in length, and promulgating and enforcing regulations related thereto.

7. Defendant Joseph Sweda is a citizen of the State of Wisconsin and resides at 4910 Ascot Lane, Madison, Wisconsin 53711. Defendant Sweda is a member of the Wisconsin Highway Commission and is sued individually and in his official capacity. His duties include issuing annual permits for the operation of vehicle combinations exceeding 55 feet in length, and promulgating and enforcing regulations related thereto.

8. Defendant Rebecca Young is a citizen of the State of Wisconsin and resides at 639 Crandall Street, Madison, Wisconsin 53711. Defendant Young is a member of the Wisconsin Highway Commission

and is sued individually and in her official capacity. Her duties include issuing annual permits for the operation of vehicle combinations exceeding 55 feet in length, and promulgating and enforcing regulations related thereto.

9. Defendant Wayne Volk is a citizen of the State of Wisconsin and resides at 1240 Sweet Briar Road, Madison, Wisconsin 53705. Defendant Volk is the Chief Traffic Engineer for the State of Wisconsin and is sued individually and in his official capacity. He has been delegated the responsibility of issuing permits for the operation of vehicle combinations exceeding 55 feet in length, by the Wisconsin Highway Commission.

10. Defendant Lewis V. Versnik is a citizen of the State of Wisconsin and resides at RFD 1, Lodi, Wisconsin 53555. Defendant Versnik is the commanding officer of the Wisconsin State Patrol and is sued individually and in his official capacity. His duties include enforcing restrictions limiting the length of trucks to 55 feet on interstate highways in Wisconsin, unless a proper permit has been issued by the Wisconsin Highway Commission.

[4]

11. Defendant Bronson C. LaFollette is a citizen of the State of Wisconsin and resides at 733 Lakewood Boulevard, Madison, Wisconsin 53704.

Defendant LaFollette is the Attorney General of the State of Wisconsin and is sued individually and in his official capacity. He is joined as party-Defendant in this lawsuit as it challenges the constitutionality of Wisconsin administrative regulations, orders, and/or laws. He is also the chief state constitutional officer charged with enforcing Wisconsin laws and regulations.

IV.

STATEMENT OF THE CLAIM

12. Plaintiff Raymond Transportation, Inc. (hereinafter "Plaintiff Raymond") is a common carrier duly certificated by the Interstate Commerce Commission under Certificate of Public Convenience and Necessity No. MC-66788, and various sub numbers thereunder. It holds authority to operate as a common motor carrier of general commodities (with the usual exceptions, excluding commodities in bulk, commodities requiring special equipment or handling, Class A and B explosives, and household goods) in interstate and foreign commerce.

13. Pursuant to its operating authority, Plaintiff Raymond is regularly engaged as a common motor carrier between the Minneapolis-St. Paul

commercial zone and points West, on the one hand, and the Chicago commercial zone and contiguous territory in the state of Illinois on the other hand, via Interstate Highways 94 and 90. Plaintiff Raymond participates in joint rates and the through movement of shipments and interchange of vehicles, in interstate commerce, originating and terminating beyond its authorized territory. Plaintiff Raymond has no pick-up or delivery services within the State of Wisconsin and solely uses Interstates 94 and 90 to traverse Wisconsin on its routings between the Chicago area and the Minneapolis-St. Paul area.

14. Plaintiff Consolidated Freightways Corporation of Delaware (hereinafter "Plaintiff CF") is a common carrier duly certificated by the Interstate Commerce Commission under Certificate of Public Convenience and

[5]

Necessity No. MC-42487 and various sub numbers thereunder. It holds authority to operate as a common motor carrier of general commodities (with the usual exceptions, excluding commodities in bulk, commodities requiring special equipment or handling, Class A and B explosives, and household goods) in interstate and foreign commerce.

15. Pursuant to its operating authority, Plaintiff CF is regularly engaged as a common motor carrier between such points as the Detroit commercial zone and the Seattle commercial zone, as well as zones and points in between, traversing Wisconsin via Interstates 94 (and alternate Interstate 894) and 90. Plaintiff CF regularly traverses Wisconsin via said interstate highways between the Illinois-Wisconsin boundary and the Minnesota-Wisconsin boundary, moving traffic and vehicles which neither originate nor terminate in Wisconsin. In addition, Plaintiff CF has pick-up and delivery terminals at various points in the State of Wisconsin. Accordingly, a portion of this action relates to interstate traffic which Plaintiff CF originates or terminates in the State of Wisconsin but is specifically limited to Plaintiff CF's Milwaukee and Madison terminal locations which are directly contiguous to Interstate 94 and Interstates 94 and 90, respectively, and may be reached by four lane divided highways exclusively. Such shipments, originating or terminating in the State of Wisconsin, move solely in interstate commerce.

16. At all times herein, Interstate 94 was and is a four lane, limited-access, divided highway, spanning two-thirds of the nation, generally in an East-West direction, between Detroit and, in

conjunction with Interstate 90, the Pacific Northwest. Interstate 94 includes a segment of the State of Wisconsin between a point near Zion, Illinois, and a point near Lakeland, Minnesota [and includes a segment designated Interstate 894 forming an alternate or by-pass routing in Milwaukee County, Wisconsin]. At all times herein, Interstate 90 was and is a four lane, limited-access, divided highway, with a segment located in the State of Wisconsin between a point near South Beloit, Illinois, and Madison, Wisconsin, at which point Interstate 90 intersects Interstate 94. A map outlining the routes which are the subject of this action is attached hereto and incorporated

[6]

herein as Exhibit A. The routes of Interstates 94 (and alternate Interstate 894) and 90 from the principal, most direct, non-circuitous interstate routing between Chicago and points East, on the one hand, and Minneapolis-St. Paul and points West, on the other. The routing from the Illinois-Wisconsin boundary via Interstate 90 to Madison, Interstates 94/90 to a point near Tomah, Wisconsin, and Interstate 94 to the Minnesota-Wisconsin boundary, forms the most direct routing between Chicago and Minneapolis-St. Paul. All portions of Interstate 94 (and alternate Interstate 894) and

Interstate 90 in the State of Wisconsin were financed by the Federal government which provided a minimum of 90% of the necessary funds pursuant to 23 U.S.C. §120(c).

17. Plaintiffs both own and, where permitted by law, operate twin-trailer combinations which consist of a tractor pulling two trailers up to 28 feet each in length, hitched in tandem, for a total length not in excess of 65 feet (hereinafter collectively referred to as "Twin-Trailers"). Twin-Trailers carrying general commodities are permitted on the entire length of Interstate 94 and connecting routes between Detroit and Seattle, with the exception of that segment of Interstate 94 in the State of Wisconsin. Twin-Trailers carrying general commodities are similarly barred on Interstate 90 in Wisconsin. But for the Wisconsin "island," Twin-Trailer general commodity thru-service would otherwise be available between Detroit and Seattle, Chicago and Minneapolis, and other points in between.

18. §348.27(6) Wis. Stats., allows Twin-Trailers to be operated on Wisconsin highways by annual permits:

"TRAILER TRAIN PERMITS.
Annual permits for the operation of
trains consisting of truck tractors,

tractors, trailers, semitrailers or wagons which do not exceed a total length of 100 feet may be issued by the highway commission for use of the state trunk highways and by the officer in charge of maintenance of the highway to be used in the case of other highways. No trailer train permit issued by the local officials for use of highways outside the corporate limits of a city or village is valid until approved by the highway commission. Every permit issued pursuant to this subsection shall designate the route to be used by the permittee."

[7]

19. However, Defendants Rice, Huber, Sweda and Young and/or their predecessors, as members of the Wisconsin Highway Commission acting under color of law and exercising statutory authority to promulgate administrative orders, have enacted a regulation of state-wide application which denies Twin-Trailer annual permits to carriers of general commodities. The regulation §HY 30.14(3)(a), Wisconsin Administrative Code, provides:

"Trailer-train permits shall be issued only for the operation of vehicles used for the transporting of municipal refuse or waste, or for the interstate or intra-state operation without load of vehicles in

transit from manufacturer or dealer to purchaser or dealer, for the purpose of repair."

20. Further, all Defendants herein are responsible for the administration and enforcement of §HY 30.14(3)(a), Wisconsin Administrative Code, and, as a result thereof, have refused and do refuse to issue, and are precluded by said regulation from issuing, Twin-Trailer permits to general commodity carriers.

21. On April 10, 1975, Plaintiffs Raymond and CF filed applications with Defendants Rice, Huber, Sweda, Young, and Volk for annual permits to be used:

- A. In the case of Plaintiff Raymonds's application, on a restricted number of Twin-Trailers limited to the transportation of general commodities, in interstate commerce only, across Wisconsin, via Interstates 90 and 94 [from South Beloit, Illinois to Lakeland, Minnesota] for shipment and operations solely between states other than Wisconsin; and
- B. In the case of Plaintiff CF, on a restricted number of Twin-Trailers limited to the transportation of general commodities in interstate commerce, for certain shipments moving solely across Wisconsin, on Interstate 94 (and alternate Interstate 894) and Interstate 90 solely between states other than Wisconsin,

sin, and for certain shipments moving in interstate commerce only to and from terminals of Plaintiff CF located at Milwaukee and Madison, directly contiguous to Interstate 94 and Interstates 90 and 94, respectively, and reached by access routes exclusively over four-lane divided highways and roads.

These applications are hereinafter collectively referred to as "the Interstate Applications." A copy of the Interstate Applications is attached hereto and incorporated as Exhibit B. On April 17, 1975, said Defendants, under color of law, denied the Interstate Applications because of the limitations in §HY 30.14(3)(a), Wisconsin Administrative Code, restricting such permits to the [8]

transportation of municipal waste, etc., as provided therein. A copy of the order denying the Interstate Applications is attached hereto and incorporated herein as Exhibit C.

22. §HY 30.14(3)(a), Wisconsin Administrative Code, as applied to the Interstate Applications, constitutes an undue burden on interstate commerce in violation of the Commerce Clause, Article I, Section 8, Clause 1, of the United States Constitution.

23. To the extent Defendants may have also denied the Interstate Applications as a result of

other regulations or statutes not presently known by Plaintiffs, or cited by Plaintiffs as being applicable herein, those regulations and statutes are similarly unconstitutional.

24. As a direct result of Defendants' refusal to issue the Interstate Applications:

- A. Plaintiffs are forced to divide and/or unload Twin-Trailers at the Illinois-Wisconsin and Minnesota-Wisconsin borders to enable general commodities to pass across Wisconsin, or are forced to forego use of Twin-Trailers in and between territories other than Wisconsin, or are forced to operate Twin-Trailers over indirect, inefficient, circuitous routings, depending upon particular and varying circumstances.
- B. Plaintiff Raymond has been effectively precluded from fully utilizing the more efficient Twin-Trailers in its Minnesota and Illinois operations where Twin-Trailers are permissible.
- C. Plaintiffs are unable to integrate and utilize uniform equipment in operations East and West of Wisconsin.
- D. Plaintiffs are forced to subject the public to delays in service as a result of the unnecessary unloading and reloading of shipments at the Wisconsin border, or extra-territorially in other states.

- E. Plaintiffs are unable to interline Twin-Trailer shipments in this region.
- F. Plaintiffs are forced to incur additional and unnecessary expenses for labor, fuel, maintenance and equipment as a result of Wisconsin's Twin-Trailer restrictions. In the case of Plaintiff CF, these additional and unnecessary expenses amount to \$2.4 million per year.
- G. Plaintiffs are unable to utilize their most energy efficient equipment per se, i.e., Twin-Trailers, in an energy crisis.

[9]

25. Wisconsin's prohibition against Twin-Trailers on the interstate system has increased general commodity freight interstate rates formulated for surrounding rate making territories, including Illinois, Indiana, Iowa, Michigan, Ohio, and Wisconsin. Inasmuch as freight rates for the territories including and surrounding Wisconsin are generally determined by averaging the total carrier costs within the respective rate making territories, Wisconsin's Twin-Trailer prohibition has the extra-territorial effect of increasing freight rates on shipments moving solely between points in other states, as well as those moving to, from, and through Wisconsin.

26. Twin-Trailers are safer than the 55 foot single semi-trailer combinations presently in use on

Interstates 94 and 90 in Wisconsin. Twin-Trailers are and have been routinely used on super-highways in most other states of the United States for many years and have a lower accident rate per vehicle mile than do conventional 55 foot single semi-trailer combinations.

27. Interstate 94 (and alternate Interstate 894) and 90, in Wisconsin were built in accordance with Federal specifications and are structurally adequate for Twin-Trailers.

28. Wisconsin's prohibitions against Twin-Trailers on the interstate system as alleged herein, are not applied by Defendants in an even-handed and non-discriminatory manner, as "over-length" permits are routinely granted to classes of vehicles indistinguishable from those of the Plaintiffs in terms of size, safety, and divisibility of loads, pursuant to other administrative regulations and orders. For example:

A. Pursuant to §348.27(5), Wis. Stats., and §Hy 30.12, Wisconsin Administrative Code, Defendants routinely grant permits to automobile carriers to operate 65 foot combinations containing new and used cars on highways throughout Wisconsin, including two lane roads.

B. Pursuant to §348.27(4), Wis. Stats., and §Hy 30.08, Wisconsin Administrative

Code, Defendants routinely grant Wisconsin-based industries and agent motor carriers permits to operate Twin-Trailers and other vehicles exceeding 55 feet, between plants within and without Wisconsin.

[10]

C. Pursuant to §348.27(5), (9), (7), and (7m), Wis. Stats., and similar provisions in the Wisconsin Administrative Code, Defendants also routinely issue permits to operate "over-length" vehicles for the transportation of mobile homes, scrap metal, pulpwood, poles and pipes, in local as well as interstate commerce on two lane highways.

29. Wisconsin's discriminatory regulations which grant "over-length" permits to the auto industry, Wisconsin-based industries, the pole and pipe industry, the mobile home industry, the metal scrap industry, and the pulpwood industry, while excluding general commodity carriers from similar rights, also violate the Equal Protection Clause of the Fourteenth Amendment of the United States Constitution.

30. Upon information and belief, Defendants Rice, Huber, Sweda, Young, and Volk have issued "over-length" permits to the above industries to effect local economic interest and advantage.

31. Wisconsin's Twin-Trailer prohibition against general commodity carriers imposes a substantial and excessive burden on interstate

commerce and does not effectuate any legitimate local public interest.

32. Plaintiffs have suffered and continue to suffer irreparable injury for which they have no remedy at law as a result of Defendants' denial of the Interstate Applications.

33. An actual and present controversy exists between Plaintiffs and Defendants as alleged herein.

V.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs seek judgment as follows:

- A. That the Court convene a three-judge panel to adjudicate this action pursuant to 28 U.S.C. §2281 and 28 U.S.C. §2284, as this action seeks interlocutory and permanent injunctive relief restraining Defendants from enforcing Wisconsin administrative regulations, orders and/or laws.
- [11] B. That the Court issue a preliminary injunction and a permanent injunction restraining and enjoining Defendants from continuing to deny the Interstate Applications, and restraining and enjoining Defendants from enforcing §Hy 30.14(3)(a), Wisconsin Administra-

tive Code, and any other applicable regulations or statutes so as to prohibit Plaintiffs' Twin-Trailers on interstate highways carrying general commodity shipments:

- (i) Across Wisconsin in shipments and operations solely between states other than Wisconsin; and
 - (ii) To or from Wisconsin, in shipments and operation in interstate commerce only, over Interstates 94 (and alternate Interstate 894) and Interstate 90 and originating or terminating at terminals directly contiguous and with access to said Interstates over four lane divided highways exclusively.
- C. That the Court issue a declaratory judgment holding that the denial of the Interstate Applications, and the enforcement of §Hy 30.14(3)(a), Wisconsin Administrative Code, and any other applicable regulations or statutes so as to prohibit Plaintiffs' Twin-Trailers on interstate highways carrying general commodity shipments between states other than Wisconsin, and to or from specific Wisconsin locations, in interstate commerce, violates the Commerce Clause and/or the Equal Protection Clause of the United States Constitution.
- D. That the Court provide any other relief that it may deem just and proper.

[Exhibits Omitted in Printing]

DEFENDANTS' ORIGINAL ANSWER

Filed May 19, 1975

[Caption Omitted in Printing]

Now come the defendants above named by their attorneys, Bronson C. La Follette, Attorney General, and Albert Harriman, Assistant Attorney General and answer the complaint herein as follows:

1. Admit the allegations of paragraph 1 of the complaint except deny that Wis. Adm. Code Hy 30.14(3)(a) constitutes an undue burden on interstate commerce to any extent, and deny that Wisconsin unreasonably discriminates against plaintiffs in any way. As to the allegation that 65 foot twin-trailer combinations are safer than single semi-trailer combinations, defendants have no knowledge sufficient to form a belief as to the truth or falsity thereof, and therefore deny the same and put the plaintiffs to their proof thereof.

2. Admit the allegations of paragraph 2 of the complaint, except as to the allegation that the amount in controversy as to each plaintiff exceeds the sum of \$10,000 exclusive of interest

[2]

and costs, defendants have no knowledge sufficient to form a belief as to the truth or falsity thereof, and therefore deny the same and put the plaintiffs to their proof thereof.

3. Admit the allegations of paragraphs 3 through 11 of the complaint.

4. Admit the allegations of paragraphs 12 through 17 of the complaint.

5. Answering paragraph 18 of the complaint, defendants allege that sec. 348.27(6), Stats. authorizes the highway commission to issue permits for the operation of twin-trailers upon state trunk highways.

6. Admit the allegations of paragraph 19 of the complaint.

7. Admit the allegations of paragraph 20 of the complaint, except deny that defendants Versnik and La Follette are responsible for the administration and enforcement of Wis. Adm. Code Hy 30.14(3)(a).

8. Admit the allegations of paragraph 21 of the complaint, except deny that defendants Versnik and La Follette denied the interstate applications of the plaintiffs.

9. Deny the allegations of paragraphs 22 and 23 of the complaint.

10. As to the allegations of paragraphs 24 through 26 of the complaint, defendants have no knowledge sufficient to form a belief as to the truth or falsity thereof, and therefore deny the same and put plaintiffs to their proof thereof.

11. Admit allegations of paragraph 27 of the complaint.

[3]

12. Deny the allegations of paragraph 28 of the complaint except as follows: Admit the allegations of paragraph 28A. Admit the allegations of paragraph 28B, except deny that such permits are presently issued for three vehicles in combination. Admit the allegations of paragraph 28C, except deny that overlength permits are issued for transportation of scrap metal and pulpwood.

13. Deny the allegations of paragraphs 29 through 32 of the complaint.

14. Admit the allegations of paragraph 33 of the complaint.

WHEREFORE, the defendants pray that the court enter judgment declaring that the refusal of the State of Wisconsin to allow plaintiffs' twin-trailers upon its highways does not constitute an undue burden upon interstate commerce and does not deny to plaintiffs the equal protection of the laws.

* * *

PRETRIAL CONFERENCE MEMORANDUM

Entered May 22, 1975

[Caption Omitted in Printing]

* * *

[2]

On or before June 16, 1975, counsel for defendants is to serve and file an amended answer raising any and all affirmative defenses which defendants may elect to raise. Included within said affirmative defenses, defendants will be required to set forth every justification for the challenged regulation, such as safety, for example, upon which defendants will rely. Thereafter, additional justifications may be raised by the defendants only upon express permission by the court.

* * *

[3]

Entered this 22nd day of May, 1975.

BY THE COURT:

/s/ James E. Doyle

District Judge

DEFENDANTS' AMENDED ANSWER

Filed June 17, 1975

[Caption Omitted in Printing]

[1]

NOW COME the defendants above named by their attorneys, Bronson C. La Follette, Attorney General, and Albert Harriman, Assistant Attorney General, and amend their answer to the complaint herein as follows:

1. Admit the allegations of paragraph 1 of the complaint except deny that Wis. Adm. Code Hy 30.14(3)(a) constitutes an undue burden on interstate commerce to any extent, deny that Wisconsin unreasonably discriminates against plaintiffs in any way, and deny that 65 foot twin-trailer combinations are safer than single semi-trailer combinations.

2. Repeat and reallege all of the denials, admissions, and allegations of paragraphs 2 through 14 of their original answer, and incorporate them herein by reference as if fully set forth herein.

[2]

Further answering the complaint the defendants allege as follows:

3. For many years it has been the public policy of this state, as expressed by the legislature in sec. 348.07, Stats., that, with certain exceptions, no combination of two vehicles shall be operated upon the public highway with an overall length in excess of 55 feet. Although numerous bills and resolutions have been introduced to change this 55-foot restriction, the legislature has refused to change this law to permit larger combinations of vehicles to be operated in this state. This limitation of length is a regulation in the interest of public safety. The problem is primarily a matter of commingling upon the same highway more big trucks with automobiles. As an exception to this 55 foot length limitation, the legislature, by sec. 348.27(6), Stats., has authorized the State Highway Commission to issue certain trailer train permits up to 100 feet long. As set forth in Wis. Adm. Code Hy 30.14(3)(a), that Commission has determined that such trailer train permits shall be issued only for hauling municipal waste or the operation, without a load, of trailer train vehicles in transit from manufacturer or dealer to purchaser or dealer, or for the purpose of repair.

4. While trucks are getting bigger, cars are getting smaller. There are also small trucks, vans, campers, motor homes, and cars pulling mobile homes, boat trailers, and other trailers. All of these operate in the same lanes and now at the same speed limits as the largest trucks. None of these fares very well in a collision with a big truck. There are more fatalities in highway accidents involving big trucks than

[3]

in such accidents involving cars alone.

5. It is often hard for a car to pass a truck. This becomes even more difficult where one truck is following behind another truck. Now that trucks may run as fast as cars, trucks will be passing cars more often. This car-truck conflict also arises where either a car or a truck has to change lanes to exit from a freeway. Adding an extra 10 feet to trucks adds an extra 10 feet of this hazard, and increases the passing distance by a much greater amount. This is much worse in rain, or snow, or slippery weather. A car windshield may be temporarily covered by rain or slush, sprayed up by a truck, for the length of time it takes to pass the truck. The longer the truck the greater this problem will be.

6. Stopping distances are greater for big trucks than for cars. Failure of big trucks to be able to stop has caused bad accidents. Twin-trailer combinations tend to fish tail and jack knife in slippery weather. A jack knifed 65-foot twin-trailer could block the whole roadway. The larger the vehicle the greater the blockage and the greater the danger to others.

WHEREFORE, the defendants pray that the court enter judgment declaring that the refusal of the State of Wisconsin to allow plaintiffs' twin-trailers upon its highways does not constitute an undue burden upon interstate commerce and does not deny to plaintiffs the equal protection of the laws.

* * *

STIPULATION AS TO EVIDENTIARY RECORD

Filed November 19, 1975

[Caption Omitted in Printing]

IT IS HEREBY AGREED AND STIPULATED by and between counsel that:

1. The evidentiary record in this case will include all timely-filed depositions, sworn testimony, affidavits, admissions, and all exhibits thereto, as well as any additional evidence late-filed by stipulation.

2. The sworn testimony of Messrs. Ebeling, Wrightson, Foslien and Happper [sic] filed herein, was prepared in advance by agreement of the parties, as is frequently done in ICC cases, on the express understanding that Plaintiffs produce said witnesses in Madison for cross-examination, if requested by Defendants.

3. All xerox or duplicate copies of exhibits attached to depositions, sworn testimony, and affidavits may be used with the same force and effect as if they were originals.

* * *

DEPOSITION OF KENNETH L. PIERSON

Filed August 22, 1975

[Caption Omitted in Printing]

* * *

DIRECT EXAMINATION

BY MR. AXELROD:

* * *

[3]

A. My name is Kenneth L. Pierson. I am the Deputy Director of the Bureau of Motor Carrier Safety, Federal Highway Administration, U. S. Department of Transportation, Washington, D. C. 20590.

Q. What is the Bureau of Motor Carrier Safety?

A. The Bureau of Motor Carrier Safety is that agency of Government charged with the regulating of the safety of operation of motor carriers in interstate and foreign commerce.

* * *

[7]

Q. Mr. Pierson, how prevalent are 65-foot twin trailers today among motor carriers in interstate commerce?

A. The vast majority of the States do permit 65-foot twin trailers.

Q. And could you tell us when 65-foot twin trailers were first used in interstate commerce?

A. That's an interesting question, because probably twin trailers were first used by the military during World War I. Their commercial application really didn't catch on until following World War II, and a tremendous growth began with the Interstate Highway Program, which was initiated in 1956.

Q. Are 65-foot twin trailers permissible under the Federal Safety Regulations governing interstate motor carriers?

[8]

A. Yes, they are.

Q. Can 65-foot twin trailers meet all the standards in the Federal Safety Regulations including, but not limited to, the standards with respect to braking and stopping distances?

A. Yes. Not only can they, but they must meet all of the requirements of the Federal Motor Carrier Safety Regulations when operating in interstate or foreign commerce.

Q. Are explosive carriers permitted to carry explosives on 65-foot twin trailers under the Federal Safety Regulations?

A. Yes, they are.

Q. Was this always the case?

A. No. For a long period of time it was believed that this was not desirable, and during the early 1950s when the Bureau was part of the Interstate Commerce Commission the question of movement of explosives by twin trailers came up and, after a series of hearings and investigations, the Bureau of Motor Carrier Safety and the Interstate Commerce Commission concluded that twin trailers were perfectly safe for the transportation of explosives, and the regulations which precluded them from that traffic were changed.

[9]

Q. Now, in your own personal experience, have you had the opportunity to drive or ride in, test and inspect twin trailers as well as conventional or the usual semitrailer of 55 feet?

A. Yes. As I indicated earlier, I was formerly a truck driver and did spend four years in the field during which time I inspected a significant number of twin-trailer combinations.

Q. What has been the safety experience of the Bureau of Motor Carrier Safety with respect to 65-foot twin trailers as opposed to

semitrailer and tractor combination for an approximate length of 55 feet?

A. Our experience has been that twin trailers are as safe as, if not safer than, conventional semitrailers.

Q. Mr. Pierson, do you have any data supporting your statement that twin trailers are safer or as safe as conventional semitrailers?

A. Yes. Early in 1974 the Bureau of Motor Carrier Safety conducted a survey of carriers known to operate both twin-trailer combinations and conventional units to determine their safety experience. It was felt by us that the most realistic evaluation could be obtained by comparing vehicles that operated over the same terrain, were subject to the same

[10]

control and maintenance and dispatch conditions, and this survey covered a five-year period and has been summarized in a document entitled "Safety Comparison of Doubles Versus Tractor-Semitrailer Operations."

* * *

[10]

Q. What does the data show in terms of safety for twin trailers?

A. The data shows that twin trailers are safer than

[11]

conventional semitrailers after computing the number of accidents per 100,000 miles, the number of injuries per 100,000 and the number of fatalities per 100,000 miles, and estimates of the property damage, injuries and fatalities on a per-accident basis.

In all of the years covered by this data, the twin-trailer operations are significantly safer.

* * *

[13]

Q. And what was the general conclusion for all five years with respect to safety for twin trailers as opposed to semitrailers?

A. Our conclusion was that the data bears out the contention that twin-trailer units are as safe as or safer

[14]

than conventional semitrailer units.

Q. Now, Mr. Pierson, how does the data in the department survey conform to your own qualitative experience as the chief enforcer of the Federal Safety Regulations and the agency that investigates motor carrier accidents?

- A. The data conforms to our views perfectly.
- Q. Now, as the Deputy Director of the Bureau of Motor Carrier Safety, do you have any objection in terms of safety to twin trailers?

A. None whatsoever.

- Q. Mr. Pierson, why are twin trailers safer?

A. There are a number of factors involved. First, better maneuverability because of the increased number of articulation points, which are the joints between each element of the unit, and this increased articulation makes twin trailers more maneuverable and better able to absorb instability.

Secondly, twin trailers track better.

Next, the loads are typically distributed more evenly through the twin-trailer units.

Also, twin trailers require shorter turning radii.

Finally, twin trailers make possible more tire footprint area, which results in better braking, because the

[15]

increase in the area of tire footprint does not bear a linear relationship to the increased weight that would be allowed because of increased capacity.

* * *

CROSS-EXAMINATION

BY MR. HARRIMAN:

[22]

* * *

- Q. Is it also your understanding that trucking companies place their most experienced and competent drivers in the position of driving the doubles as distinguished from driving the semis?

A. Yes. I think that's true as a generalization. Principally because of the seniority system in the franchise trucking industry, which, as you know, is highly unionized. In this case, or in most cases there is a premium pay for the operation of doubles, and therefore the most senior members would bid on those runs and would get them.

- Q. Thus, the apparent better record of doubles is, no doubt, contributed to in part by the fact that we have better drivers driving those vehicles, would you say?

A. Yes. I would tend to agree with that. Although the more important point, I think, is that it's possible for the doubles to be operated more safely and therefore driver experience and training are important backup.

Q. And to the extent that doubles are operated more on the interstates than on the two-lane roads, that would contribute to making the record of the doubles, safety record, more favorable, would it not?

A. Yes, I believe that would be an influence.

* * *

[25]

Q. But I understand that the double bottom can be

[26]

loaded more nearly to the legal weight limits than the semitrailer with the loaded vans, for example.

A. I don't have that same understanding. The advantage of the doubles is the increased productivity. Trucking is a labor-intensive industry in which the drivers' wages amount to more than 50 percent of the cost of the operation. And anything that would improve his productivity; that is, the ability legally to carry more cargo, of course, results in more efficient operation.

* * *

[30]

Q. Is it still a fact, though, that big trucks cannot stop as fast as cars?

A. It's generally believe [sic] to be so.

Q. Wouldn't the same be true of ability to accelerate? Can't a car accelerate much more quickly than a big heavily loaded truck?

A. Cars in the mid-range and above, yes. Not necessarily subcompacts and others which, for reasons of fuel economy, have low-powered engines.

* * *

[32]

Q. Among other data produced in that study which I've read, they indicated that, while big trucks have fewer accidents than cars per -- I don't know, per vehicle, I guess, or per mile or per whatever; fatalities in truck accidents tend to be about double fatalities in car accidents. Are you familiar with any such data or similar data?

A. Yes. That's correct. The law of physics dictate [sic] that outcome. A larger mass collides with a smaller mass, the smaller mass fares less well.

* * *

[37]

- Q. Well, doesn't the extra articulation contribute to, well, the momentum of spinning or jackknifing or whatever you want to call it?
- A. No. Not really. The single trailer tends to pivot on the pin of the first joint and sweep, if you will. On the other hand, an articulated unit, as a difficulty, can have some lateral instability in the middle units which won't commit the entire unit to the sweep as quickly as a single-unit vehicle.

* * *

[Jurat]

* * * * *

PIESON DEPOSITION, Exhibit 2
SAFETY COMPARISON OF DOUBLES VS. TRACTOR-SEMI TRAILER OPERATIONS

	Number of Vehicles	Number of Miles (000)	Number of Accidents	Number of Injuries	Number of Fatalities	Amount of Property Damage (\$)	Accidents/Mile (000,000)	Injuries/Mile (000,000)	Fatalities/Mile (000,000)	Property Damage (\$)/Mile	Injuries/Accident	Fatalities/Accident	Property Damage (\$)/Accident
1973													
Doubles	3010	461,322	351	227	19	2,184,691	.761	.492	.041	.0047	.646	.054	6224
Tr-Seml	2145	193,552	182	140	15	1,274,416	.940	.723	.078	.0066	.769	.002	7002
1972													
Doubles	2899	434,580	287	233	21	1,512,333	.660	.550	.048	.0015	.833	.073	5269
Tr-Seml	2283	198,646	158	148	16	824,359	.795	.745	.081	.0041	.937	.101	5217
1971													
Doubles	2667	392,062	251	217	19	1,653,118	.640	.554	.019	.0042	.865	.076	6586
Tr-Seml	2312	202,135	156	142	10	1,004,991	.760	.699	.049	.0050	.910	.064	6442
1970													
Doubles	2508	337,911	211	180	21	1,260,067	.624	.533	.062	.0037	.853	.100	5972
Tr-Seml	2332	184,872	178	171	13	958,568	.963	.925	.070	.0052	.961	.073	5305
1969													
Doubles	1721	204,075	108	101	8	453,685	.529	.495	.039	.0022	.935	.074	4201
Tr-Seml	1651	124,329	105	124	8	485,494	.845	.997	.064	.0039	1.18	.076	4624

Data Represents:

IML Freight, Inc.
 Consolidated Freightways
 Pacific Intermountain Express Co.
 Pacific Motor Trucking Co.
 Boise Cascade Corporation
 Garrett Freightlines, Inc.
 Navajo Freight Lines, Inc.

DEPOSITION OF ERNEST G. COX

Filed October 17, 1975

[Caption Omitted in Printing]

* * *

DIRECT EXAMINATION

BY MR. AXELROD:

* * *

[3]

Q. What is your profession, Mr. Cox?

A. For a number of years I was with the Federal Government in charge of motor carrier safety and since my retirement from that position I have served as consultant to a number of organizations and people concerned with commercial motor vehicle safety, including American Trucking Association, where I serve as consultant to its executive level committee known as Safety Committee on Research and Environment, consultant to a national trade publication, I have served for many years and continue to serve as a member of the Board of Directors of the National Safety Council,

[4]

I have been a member of the National Committee on Uniform Traffic Laws and Ordinances for twenty-five years and continue to serve as the chairman of its subcommittee on vehicles, and continue participation in a number of activities involved in highway safety particularly.

Q. What was the year you retired from the Bureau of Motor Carrier Safety?

A. 1969.

Q. What was your last position, sir?

A. At that time I was Deputy Director, the Bureau of Motor Carrier Safety in the United States Department of Transportation.

* * *

[6]

A. I have been a member of the Board of Directors of the National Safety Council since 1952 except for one year. I am also a member of the National Committee on Uniform Traffic Laws and Ordinances and have been since 1950, presently chairman of its subcommittee on vehicles.

* * *

[7]

Q. As Deputy Director of the Bureau of Motor Carrier Safety, both for the Interstate Commerce Commission and later for the Department of Transportation after the reorganization, could you give us a brief summary of your duties?

A. Yes. Essentially my duties were to advise the Interstate Commerce Commission, to make recommendations to it with respect to the formulation and adoption of regulations necessary for the safe operation of commercial motor vehicles in interstate and foreign commerce.

* * *

[8]

Q. Who holds your position now at the Bureau of Motor Carrier Safety?

A. Kenneth Pierson.

Q. Are you familiar with a combination of vehicles of 65 feet, commonly known as double bottoms or twin trailers?

A. Yes, I am.

* * *

[9]

Q. During your tenure as Deputy Director of the Bureau of Motor Carrier Safety were twin trailers permitted to carry explosives?

A. No, they were not, until such time as a change in regulations was made.

Q. When did the change in regulations occur?

A. In 1961.

* * *

[10]

Q. So, this former regulation ruled out the transportation of explosives on twin trailers?

A. It prohibited it, yes.

Q. Do you know the origin of former Section 77.835?

A. No. That section was adopted in the form I have just referred to prior to my association with the Interstate Commerce Commission. It has been referred to in Commission reports which were adopted prior to my association with the

[11]

Commission back as early as 1935.

* * *

[12]

Q. So, you had in your power to yourself initiate a proceeding to allow the carriers carriage of explosives on twin trailers?

A. That is correct.

Q. Were you informally requested to do so?

A. Yes; on a number of occasions prior to 1960 motor carriers, particularly those stationed and headquartered in the western states, and their representatives, their attorneys and safety officials, from time to time urged that I initiate action to change Section 77.835[c] of the Code of Federal

[13]

Regulations.

Q. Did you do so?

A. No, I did not take initiative on my own account. I continued to resist this action for some time.

Q. Why did you resist this action?

A. I was skeptical, frankly, of the stability of the trailers in this type of configuration unless the length was adequate of the combination. In many states -- and let me make the point that regulations of this sort, of course, were applicable to motor carriers at

any place in the country, not merely in the states where sixty-five foot combinations were permissible -- and because I was apprehensive with respect to the stability of vehicles in combinations of less length than that, I was unwilling to initiate the change in the regulations.

Q. So, the filing of the formal petition by the motor carriers thus forced the issue; is that correct?

A. That is correct.

* * *

[14]

Q. What did you do with respect to this issue?

A. I made a careful analysis of the petition, itself, and particularly the accident data reported in it, because that data covered the activities of quite a number of motor carriers who were parties to the petition. The accident data in the petition covered a substantial period of time, thereby getting away from any erratic likelihood. I also made a study of our own accident data on motor carriers being required to report certain accidents to the Interstate Commerce Commission and we made accident investiga-

tions to quite some extent. And in addition to that I arranged for certain members of our field staff in the western states to make observations of the performance of twin trailer combinations which were then in extensive use except for explosive hauling and upon my direction these field staff members rode these vehicles and then made oral reports to me as to their observations.

Q. What did your field staff find?

A. They reported to me that their observations were such that they found the maneuverability of them was every bit

[15]

as satisfactory and actually superior in large measure to the 55-foot tractor-semitrailer combinations. Their reports to me in essence corroborated the statements made in the letter of the Oregon Highway Department of some years before that, on curved roads and mountain grades and this sort of thing, the combination vehicles, twin trailer vehicles, handled satisfactorily and were every bit as safe as other combinations if not even more so.

Q. What about stability in particular?

A. The stability was the prime factor in which I was interested, my previous apprehension having been that, particularly if this rear trailer was a short coupled trailer, it might not track satisfactorily and might not be as stable in maneuverability and handling, and their report to me was that the stability factor was satisfactory, the center of gravity situation relative to its length, or to the length of the rear trailer, was every bit as satisfactory, and from a stability standpoint, which, of course, to me meant the safety standpoint, there was adequate reason to be satisfied.

Q. What was your recommendation to the Commission?

A. I recommended that the Commission, on the basis of the analysis that I had made and the information I had been

[16]

furnished, and my inquiries with respect to the accident experience of other twin trailers in that period of time, that the Commission change its regulations to permit the transportation of explosives on twin trailers provided the rear trailer had a wheel base of not less than 184 inches.

- Q. Was this change permitting twin trailers to carry explosives made by the ICC?
- A. It was.
- Q. And when was it made, sir?
- A. In 1961.

BY MR. AXELROD:

- Q. Now, I show you what has been marked by the reporter for identification as Plaintiff's Exhibit 4, and ask you if you can identify it?
- A. I can. I do recognize it.
- Q. What is it, sir?
- A. Plaintiff's Exhibit 4 is a copy of that part of the INTERstate [sic] Commerce Commission Regulations, Title 49 of the Code of Federal Regulations, Part 77.835, which changed the language of Paragraph [c] to permit transportation of

[17]

explosives in twin trailers provided each trailer had a wheel base of at least 184 inches.

- Q. What is the relationship between the requirement of a wheel base of 184 inches and the present commonly used twin trailer combination of sixty-five feet?
- A. In present times all combination vehicles incorporating two trailers, twin trailers, now

have wheel base lengths of at least that length.

- Q. 184 inches?
- A. 184 inches.
- Q. I take it that the wheel base of 184 inches on each trailer plus the dolly plus the tractor equals the total vehicle length of 65 feet?
- A. That is correct, yes. In order to have 184-inch wheel base on the trailers you would have to have at least 65 feet.
- Q. What were your reservations with respect to shorter twin trailers than 65 feet that led to your recommendation that there be a minimum wheel base of 184 inches?
- A. I had known of some occasions when very short trailers used as part of a two-trailer combination had displayed instability, had fishtailed a good deal, they were

[18]

often referred to in Michigan, where they were commonly used, as pups, and I was simply dissatisfied, or, unsatisfied, rather, that there had not been a sufficient demonstration that they would operate in a sufficiently stable manner and track adequately to avoid mishaps which, in my judgment, were not consistent with the care necessary for the transportation of explosives.

Q. But this phenomena, I take it, did not occur with the 65-foot twin trailer?

A. That is correct.

Q. Since the rule change in 1961 have explosives, in fact, been safely carried on twin trailers?

A. Yes; and in very great volume.

Q. From 1961 until your retirement in 1969 what was the safety experience of the Bureau of Motor Carrier Safety with respect to twin trailers?

A. I made a special effort to keep in touch with the accident experience of those firms which extensively used twin trailers, I also maintained a close contact with the operation with the safety officials of such agencies as the New York Thruway Authority, which began to permit twin trailers of very large size back in the late 1950's, and all of the

[19]

information which I could obtain, both from accident data reported to the Bureau of Motor Carrier Safety by motor carriers who were then subject to the reporting requirements, and all that I could learn from such authority as the New York Thruway Authority and my own accident investigation information, was such that twin trailers in this

transportation were every bit as safe and in some measure at least even safer than tractor-semitrailer combinations of 55 feet.

Q. Mr. Cox, what is your opinion today with respect to the safety of twin trailers as opposed to semis?

A. I am satisfied and convinced that they are every bit as safe.

* * *

[JURAT]

* * * * *

DEPOSITION OF A.S. COOPER

Filed October 20, 1975

[Caption Omitted in Printing]

* * *

DIRECT EXAMINATION

BY MR. AXELROD:

* * *

[3]

Q. And, Commissioner Cooper, are you the representative designated by the California Highway Patrol to appear at this deposition today pursuant to Rule 30[b] of the Federal Rules of Civil Procedure?

A. Yes.

* * *

[5]

Q. Commissioner, how long have doubles [65 foot twin trailers] been permitted in California?

A. They've been permitted since approximately 1950. And in 1959, they increased the length of doubles from the allowable length of 60 feet to 65 feet.

Q. How prevalent are doubles in terms of the total transportation system in California?

A. Our survey through the Department of Motor Vehicles of 1972, when we made this report, indicated there is approximately 200,000 doubles in California as compared to 372,500 semis.

Q. On what highways are doubles permitted in California, Commissioner?

A. They are permitted on all roads under our jurisdiction.

Q. Including two-lane highways?

A. Right.

Q. Are you familiar, or were you involved with the study published by the California Highway Patrol, "Accident

[6]

Experience of Double Bottom Trucks in California"?

A. Yes. At the time the study was made I was the Supervising Inspector at that time in charge of the Department's Logistics and Staff Services functions and I directed the study to be accomplished for Commissioner Pudinski.

Q. Commissioner, I show you what has been marked as Exhibit 2 and ask if you can identify this document as the study to which I have just referred?

A. Yes, this is the study.

Q. Could you describe that study, Commissioner?

A. Yes. During the latter half of 1972, the study was made of 31,883 accidents involving fatalities or injuries on highways under the jurisdiction of this Department.

Three hundred and fifty-two of these accidents involved double bottom trailers and 609 involved semi-trailers.

We studied these accidents with respect to the percentage of doubles and semis on our highways, the number of miles traveled by doubles and semis, and then compared the accident date of doubles and semis with each other and with the other types of vehicles involved in the 31,883 accidents.

Q. What were the findings in your study with respect to the percentage of doubles involved in accidents as compared to their numbers in the entire vehicle population in California?

A. Doubles are under represented in accidents when compared to their portion of all motorized vehicles on California's State-maintained roadway system. They are approximately 1.5 per cent of the motor vehicles but were involved in only 1.1 per cent of fatal and injury accidents.

[7]

A. * * *

From these comparisons, it appears as if the safety record of doubles is as good, if not better, than those of the other motor vehicle types.

Q. What were the findings with respect to the number of accidents per million miles traveled for doubles and semis?

A. Doubles and semis both had an accident rate of .5.

Table 2 shows that only the commercial bus accident rate, .4 fatal and injury accidents per million miles of travel, was lower than the .5 rate established by tractor-semitrailers and doubles.

Other trucks and all other motor vehicles trailed at .7. Thus, in terms of accident rates, doubles appear to be one of the safest vehicles on the road. They are at least as

[8]

safe as the tractor-semitrailer in this respect.

Q. Does the study also show accident rates for two trucking companies per million miles for all accidents including personal injury as well as property damage accidents?

A. Using the accident rates of trucks owned by the Pacific Intermountain Express Company [and Consolidated Freightways]...

...the conclusions drawn regarding the accident frequency of doubles and tractor-semitrailers appear to have been confirmed. Although the magnitudes differed, the ordering remained constant from source to source. In each case, the statistics indicate that the doubles are as safe as tractor-semitrailers.

In fact, they indicate a lower accident rate among doubles than among tractor-semitrailers.

- Q. Where doubles became involved in an accident, does the study show the accidents were more severe in terms of death and injury per accident than semis?
- A. With the exception of commercial buses, doubles displayed little basic differences from the other vehicle types using this measure of severity.

* * *

[12]

- Q. Are defective brakes a significant problem with doubles?
- A. No. The statement in this regard on Page 24 of the study, and elsewhere, appears to be an unwarranted assumption.

Statistically, brake violations in the study as to both doubles and semis are so negligible in actual number that they are insignificant.

Our enforcement and accident investigation experience shows no difference between doubles and semis with respect to brake violations. Even if there was a difference, it would be an individual maintenance problem.

Our design studies show the braking systems on doubles to be as effective as those on semis. Our experience with doubles and semis show that brake violations are caused by poor maintenance irrespective of vehicle types.

- Q. To what studies do you refer to support your statement that the brake system on doubles is as effective as the braking system on semis?
- A. The study referred to on Page 33 of the study, as well as the other studies I am familiar with.

* * *

[14]

- Q. What was the data in your study with respect to handling characteristics?
- A. The analysis is aimed at maneuverability, braking and passing time.

Maneuverability: When you talk about maneuverability, one of the things you must talk about is off-tracking.

Off-tracking is the current standard measure of maneuverability used by the designers of highways. It measures the inability of the rear wheels of a vehicle to follow the path established by the front

wheels in a turning maneuver. The greater the amount of off-tracking the more roadway width is needed to accommodate the vehicle negotiating the turn. This is critically important when turning on city streets and entering freeway ramps.

In a study conducted by the California Division of Highways, a maximum tracking width of 24.7 feet was required in a 60-foot radius turn by a 60-foot, five-axle tractor-semitrailer. The 24.7 feet was greater than the tracking width required of any other legal vehicle in California including the 65-foot double. It appears that in terms of off-tracking, the 65-foot double has greater maneuverability than the 60-foot, five axle semitrailer.

* * *

[15]

As an added factor, doubles are able to detach one trailer for in-town use. This greatly improves their handling

[16]

and it makes them much more maneuverable than the 60-foot tractor-semitrailer.

Braking: A study conducted by the California Highway Patrol in 1972, proved that doubles loaded with 75,600 pounds traveling at 20 miles per hour had a stopping distance of 27 feet. This was well within California's Vehicle Code requirement of 50 feet for emergency stops. It was also well within the Federal standard of 33 feet.

The requirement that a vehicle not swerve too greatly to either side during a stop was also met by the double. During the stop, the double remained within a twelve foot traffic lane.

Passing Times: Although passing time has not been measured by the California Highway Patrol, a study by the U. S. Department of Commerce indicated that vehicles up to 75 feet would not have a significant effect upon the safety potential of the usual passing operations on a two-lane facility. As such, the time required to pass a 65-foot double would not create a more significant hazard than the time required to pass other trucks and buses.

Support for this conclusion came from investigations conducted by the U. S. Bureau of Public Roads. They found that it took a

car traveling 60 miles per hour, two-thirds of a second more to pass a 65-foot double traveling at 50 miles per hour than to pass a 55-foot tractor-semitrailer traveling at the same speed. This two-thirds of a second involved slightly more than 58 extra feet of distance.

* * *

[17]

Q. What is your opinion at the present time with respect to whether there is a difference in safety between doubles and semis?

A. Doubles are safe as semis. There is really no difference between them. Both are extremely safe vehicles and consistently among the vehicle types with the lowest accident rates. The accident rates for both doubles and semis are much lower than other trucks and the auto.

* * *

[JURAT]

* * * * *

DEPOSITION OF COLONEL JAMES C. CRAWFORD

Filed October 10, 1975

[Caption Omitted in Printing]

* * *

[3]

DIRECT EXAMINATION

BY MR. AXELROD:

Q. Would you state your full name and title, sir?

A. Colonel James C. Crawford, Chief, Minnesota State Patrol.

* * *

[4]

Q. Are twin trailers permitted in Minnesota?

A. Yes, they are.

[5]

Q. How long have twin trailers been permitted in Minnesota?

A. I believe about July 16, 1973.

Q. On what highways are twin trailers permitted in Minnesota?

- A. Well, we designate the particular route numbers--the Highway Department designates those. Generally they are divided highways having two or more lanes of travel in each direction. Some other roads are designated as connector roads between these multi-lane highways and some access roads to the terminals for the trucking industry.

* * *

[6]

- Q. Now I take it from Exhibit 1, Colonel Crawford, which is the list of highways in Minnesota on which twin trailers are permitted, that twin trailers are permitted on I94 in Minnesota and connecting routes all the way from the North Dakota border to the Wisconsin border?
- A. That's correct.
- Q. Colonel Crawford, what has the experience of the Minnesota State Patrol been with respect to the safety of twin trailers as opposed to semis?
- A. Well, we haven't been able really to determine any difference in the safety factor from the twin trailers versus the semi. During the period of time that we were considering twin

trailers in Minnesota the plus side of the safety factor that we were most concerned

[7]

with was the ability of that twin trailer to be broken down in the high volume metro areas of the State of Minnesota, and that the trackage of the vehicle and the ability to be broken down was what we used as a main consideration.

- Q. What was the trackage of twin trailers as compared to semi trailers?
- A. Well, because of the length of the semi trailer the trackage broken down into two units, the trackage was a lot better. You didn't have the problems of lane use on the turns at intersections. The trailers track the tractor better.
- Q. In the twins?
- A. In the twins, yes.
- Q. Do you have any opinion as to how twin trailers fare under adverse weather conditions in Minnesota, such as snow or ice, when compared to the semis?
- A. Well, we haven't been able, again, in our -- the figures that we have in the State of Minnesota, to make any determination of any significant difference. We have reviewed the

twin trailer accident involvement and proportionately, I guess, there's no significant difference between the two.

Q. As a result of the safety experience in Minnesota with respect to twin trailers, would you have any hesitation

[8]

in recommending to other jurisdictions that twin trailers be permitted in those jurisdictions?

A. No. I don't think so. I think the use of the twin trailer in the State of Minnesota has not caused us any problem. The breakdown of the units and the load has, I think, helped the congestion in the highly congested areas.

Q. You would recommend them to other jurisdictions?

A. Yes, I would.

Q. Why, in your opinion, are twin trailers as safe as semis, considering particularly their extra 10 feet in length?

A. Well, the main significant point is the fact that they are broken down, not one -- you know, two continuous units, and because of that, because of the point of turning of these vehicles, they track better than a 40-foot trailer on to a semi.

Also, you have a better braking system. You have more brakes being able to be applied on the double bottom combination and a better braking system because of the spread of the axles of the vehicle.

Q. How has the public reacted to twin trailers in Minnesota?

A. Well, I think at the time that the bill was being proposed, I didn't receive -- I haven't received any comments either adverse or pro on the twin trailer proposal. We haven't received any complaints from the motoring public

[9]

relative to their opposition or any complaints about the selection -- the twin trailer vehicles themselves.

* * *

CROSS-EXAMINATION

BY MR. HARRIMAN:

* * *

[17]

A. But I tried to explain that during the discussions that occurred between us at the

time the twin trailer bill was being discussed it was felt that if we could cut down by the splitting of the twin trailers into smaller single units, we were going to cut down the number of 55 foot vehicles that were traveling to deliver these goods in the rural areas on these roads that you're talking about, and we felt that that too was a benefit. That if we could cut down on the number of miles traveled by the longer rigs, by making the double bottom split at terminal points, that the motoring public in Minnesota was going to not only benefit from the twin trailers operating on those roads, but would have a side benefit of the breakdown of that unit, and I -- I don't know if the term "breakdown" disturbs you, but when I say "breakdown," I mean the taking apart of -- [of the two trailers]

* * *

[19]

Q. I see. Our law allows a semi trailer rig up to 55 feet. Is that what your law allows?

A. We had generally the semi trailers with 55 feet. We did have an exception to that which was, I guess, caused by the State of Wisconsin allowing the motor transports,

[20]

because of their terminal points on Lake Michigan and also their manufacturing factories in Janesville, that they allowed the delivery trucks that deliver automobiles excess length, so they came and the legislature of Minnesota granted them authority to exceed the 55 feet.

* * *

[21]

REDIRECT EXAMINATION

BY MR. AXELROD:

Q. I take it that although you believe that length is a safety consideration, that in terms of the 65 foot twin trailer and the 55 foot semi trailer, length is not a

[22]

consideration in terms of the relative safety of those two vehicles?

A. No. You're really only talking about ten feet, you know, difference, and the passing time for that ten feet is not that significant.

* * *

[JURAT]

* * * * *

DEPOSITION OF FRANCIS C. MARSHALL

Filed October 20, 1975

[Caption Omitted in Printing]

* * *

DIRECT EXAMINATION

BY MR. AXELROD:

[3]

Q. And what is your title?

A. Assistant Commissioner, Minnesota Department of Highways.

* * *

[8]

Q. What has been the experience of your department with respect to twin trailers from the time they were first permitted in Minnesota?

A. My own personal experience was that the first winter after they became legal I requested of

all our District Traffic Engineers to report any twin trailer accidents to me and I only received a report of one that winter, which was not the fault of the twin trailer configuration, so from that first winter's operation I concluded that they were at least as safe and probably safer than the traditional 55 foot semis we were familiar with and that had been legalized for a number of years in the state.

Q. And is that your opinion at the present time?

A. Yes, it is.

* * *

[9]

Q. Do you have any data or opinion as to how twin trailers fare under adverse weather conditions in Minnesota, such as snow or ice, and particularly in adverse weather conditions as compared to semis?

A. Well, in adverse weather conditions the two major problems would again be [sic] the one I already identified, jackknifing. Second would be braking power, and with a twin trailer having a better configuration to handle this on dry pavement, it just follows that it would also have a better safety record on the glare ice or slippery pavement also.

Q. As a result of the safety experience with respect to twin trailers in Minnesota would you have any hesitation in recommending to other jurisdictions that twin trailers be also permitted in those jurisdictions?

A. No. I wouldn't have any problem with them at all.

Q. You would recommend them to other jurisdictions?

A. Yes.

* * *

REDIRECT EXAMINATION

BY MR. AXELROD:

[14]

Q. Has there been any appreciable difference in Minnesota of motorists in passing a 65 foot twin trailer as opposed to the 55 foot semi?

A. We are talking ten foot longer length trailer, or total combination, and in passing we are talking probably a second or so, and I don't think -- we haven't heard any complaints from the people on anything in this respect.

The greatest complaint we hear from passing commercial vehicles is the blow-out

from the wheels of snow and rain causing poor visibility while you're passing, and I have observed on twin trailers that they seem to set up more of a vortex because of the two separate trailers. I don't know if this is scientifically true, but just on my own observation, that vortex caused between the two trailers seems to hold that blow-out in a little more.

Q. And results in less splash and spray than the semi?

A. Yes. That's been just an observation of mine as I drive down the highways, and because of my interest in trucks

[15]

I do pull in behind them and watch them for a while and that's been my experience. There seems to be this vortex.

* * *

[JURAT]

DEPOSITION OF JAMES KARNES
 Filed September 18, 1975
 [Caption Omitted in Printing]

* * *

DIRECT EXAMINATION

BY MR. VARDAS:

[3]

Q. By whom are you employed?

A. The Wisconsin Department of Transportation.

[4]

Q. And what is your present position?

A. Research Analyst in the office of the secretary of the Department.

Q. How long have you been employed by the Department of Transportation or other Wisconsin transportation agencies?

A. Since 1951; first in the Motor Vehicle Department which became ultimately part of the Department of Transportation.

Q. Can you give a brief synopsis of your career and experience in that employment?

A. Well, briefly, I came to the State with the State Patrol which was part of the Motor Vehicle Department. I eventually became a

captain in charge of staff operations and headed the Academy in the patrol. I was then appointed Motor Vehicle Commissioner and I was in that capacity for -- in excess of 12 years.

Q. When was that appointment made?

A. 1959, January of 1959.

For the past four years until July I have been special assistant for safety and law enforcement to the secretary.

Q. Did you ever have occasion to consult with representatives of other states or review safety records of other states in relation to the use of 65-foot twin trailers?

A. Yes, I have.

Q. What were the results of your contacts and surveys?

A. In most occasions the requests for information were -- I'm going back some years now -- were met with indications from the people involved that there was no safety problem. That record and those studies were not readily available but there did not seem to be any difference in safety records. In fact, some of the western states testified before several committees of the Legislature and expressed surprise that the question would be

asked. Most of the operations were in the western states of extensive double bottoms.

Q. Did you at any time make a recommendation based upon that type of analysis as to the introduction of twin trailers in Wisconsin?

A. Yes. In my capacity as Motor Vehicle Commissioner I recall back in the mid-60's there was a bill before the Legislature and I was asked about the safety aspect of it, and I believe a synopsis of my comments would be that I saw no reason not to approve such legislation because the safety records of these vehicles [the 65' twin trailers] did not warrant any other action.

* * *

[JURAT]

DEPOSITION OF CLAUD R. McCAMMENT

Filed September 9, 1975

[Caption Omitted in Printing]

* * *

DIRECT EXAMINATION

BY MR. AXELROD:

* * *

[4]

Q. What is your occupation, Mr. McCamment?

A. I'm retired from the [Kansas] State Highway Commission, which I was Safety Director. At the present time I have been quite active continuing in traffic safety, as I was appointed approximately two and a half years ago by the then Secretary of Transportation, Volpe, as a member of the Citizens' Advisory Committee on mass transit, mass transportation, they call it, to the then Secretary Volpe and I continued on that and continue on that Committee with Secretary Brinegar to the present Secretary. In March of this year I was appointed to the Citizens' Advisory Committee by President Ford as advisor to the present Secretary of Transportation; in fact, it was

[5]

Brinegar at the time of the appointment and then the appointment was continued on under

the present Secretary of Transportation. And I have continued to be a member of the Executive Committee of A.A.M.V.A. even in retirement because of their bylaws, and I've continued to be a member on a consultant basis to the Vehicle Safety Equipment Commission.

Q. What is A.A.M.V.A.?

A. A.A.M.V.A. is the American Association of Motor Vehicle Administrators.

Q. And have you served as an officer of any of these organizations?

A. I was President of the American Association of Motor Vehicle Administrators and I was President of the State and Provincial Safety Coordinators, and I was Treasurer for three years of the Vehicle Equipment Safety Commission, and I was a member of the Uniform Laws Committee, representing the only membership from the State of Kansas, for 12 years.

* * *

[9]

A. Before 1965 in the State of Kansas we did not permit one inch of operation in the State of Kansas of any type of truck over 55 foot in

length, nor did we permit, because of that, the use of any twin trailers on any of our highways or city streets in the State. However, in 1965 the Kansas Legislature passed a bill to authorize combination of vehicles between 55 foot and 65 foot long on selected highways and routes as approved and designated by the Kansas Highway Commission. Now, I'd like to say at this time that I appeared on five different occasions before State legislative committees, both in the House and the Senate, and testified very strong against this bill at all these legislative hearings because I had the, what you might say the preconceived notion that 65-foot twin trailers were not as safe as the other types of trucks or not as safe as the 55 foot semitrailers. However, the Highway Commission saw fit after the bill was passed to delegate to our department the responsibility of conducting these studies to determine over which routes,

[10]

if any, that we could say they could be safely used for the operation of the twin trailers without jeopardizing the public safety or convenience of the general public and the other users of the highway.

Q. Could you describe the study which you performed on the 65-foot twin trailer?

* * *

A. Yes. I called in my traffic engineering section heads and we called in all the traffic engineers finally, we called in the heads of the enforcement section and special permit officers and special permit people, and we summarized how best we thought we could make any type of study, and we called in the people that headed the Central Accident Records Bureau and asked their indulgence in following up for us by setting aside every accident that might occur to any

[11]

twin trailer on any route or at any other location that they traveled in the State of Kansas....[W]e concluded that the best way to make this study was for our people, without them knowing it, in unmarked cars to follow these units at a distance and then up close at

[12]

times and continuously follow these completely across the State of Kansas, either north and south or east and west.

[13]

...[W]e finally studied every section of the highway system over which they had sought approval, and there was some six thousand miles that were studied, and most of the sections that we studied had terrain that

[14]

was hilly, was curvy, and we found that the units, the people were able to pass the units, much to our amazement, without any great difficulty. We found that the units tracked much better than the semitrailer units. We found that their maneuverability from all our observations, with no exceptions, the maneuverability of the unit, because it seemed to break in the middle and was on a pendle (phonetically) type deal there, that they were able to maneuver on some of the curves much, much better and stay on their side of the curves much better than the semis at the same speed. We also found that the general performance of the equipment was--whether it was just our thinking on the matter--but after following--in addition to this we began following semi units to see, and the hill performance of these units were much better even than the semi units.

* * *

[15]

Q. What were your final recommendations to the Highway Commission?

A. Our final recommendations were made...in January of 1967, asking the Commission to grant authority for these units to use any State highways in Kansas

* * *

[19]

A. ...[T]he conclusions reached were that these vehicles, these twin trailers that we had opposed initially to a big extent were much easier to maneuver on our highway system, their maneuverability was much better than even the semitrailers and much better than the farm trucks and others, and that their tracking ability was much improved, they followed, the units followed so much better, especially on curves, and we were much interested in this because in our previous accident studies of trucks we had found that a number of the accidents occurred on curves and where the truck would leave the curve and--or be on the wrong side of the center line. Also their general safety performance of the

general public in passing these vehicles, we found they didn't seem to be as afraid of these vehicles in passing, if you--if that word is a proper one to use--as they were of trying to pass the semis on these two-lane highways, much to our amazement.

* * *

[21]

A. ...Our records show that there are three times as many semitrailer units on the road as there are twin trailer units, but even when this is adjusted we found that the twin trailer units still had a much, much better accident record. Now, you want to remember this is approximately ten years after the initial study was made. We were continuing and the department has continued to monitor all accidents involving trucks, semitrailer and twin trailer.

* * *

[24]

Q. Could you compare the 65-foot twin trailers with the 65-foot [auto] carrier?

A. Well, on an accident record basis the twin trailer is a much safer operation in regard to the mileage that they

[25]

cover and the mileage that the twin trailer covers (sic).

Q. That the 65-foot twin trailer is safer than the auto carrier?

A. Much safer in operation than the auto carrier is.

* * *

CROSS EXAMINATION

By Mr. Harriman:

* * *

[34]

A. ...I don't know what other people are thinking but I know what 62 people in this state that did the study work, I know what their thinking was. There wasn't an adverse opinion in the whole group.

* * *

[35]

A. ...We followed these units under all types of adverse weather conditions. The semi puts out a much greater spray than the twin trailers. Now, I'm not a scientist, I don't know just why, but in our study we found

that the twin trailers did not put out nearly as much spray and muck and stuff like this as did the semi units; now, I don't know why, I'm not going to argue this point. We did it in actual observation, we observed them in fog, we observed them under all adverse weather conditions, on ice, snow, you name it, and we did this because we actually wanted to know what unsafe, if there were, any unsafe characteristics there were or what differences there were.

* * *

[Jurat]

* * * * *

DEPOSITION OF FRED J. MYERS

Filed October 1, 1975

[Caption Omitted in Printing]

* * *

DIRECT EXAMINATION

By Mr. DeWitt:

* * *

[9]

A. ...I served on that committee [Committee No. 5, Highway Research Board] until I transferred west.

Q. What did the committee conclude, if anything, or recommend?

A. Well, I think it is safe to say that the results of their work formed the basis, directly, for the recommendations that are contained in the federal size and weight report, as I recall it.

I believe that is House Document No. 253 of the Eighty-Seventh Congress.

This study had been directed by the Congress when they passed the 1956 Federal Aid Act, and the Bureau of Public Roads used all of the data compiled by the committee of economics and motor vehicle sizes and weights to help them in reaching their conclusions as to the size and weight standards that would be appropriate for at least the interstate system.

Q. I see. In other words, it was the work of this committee and their recommendation which were utilized in deciding what the weight and size limitation should be--

A. Yes, definitely.

Q. (continuing) -- on the current interstate; is that correct?

A. Yes.

* * *

[10]

Q. First, just tell me, in very general terms, in a couple or two or three sentences, what generally you did during your time with Western Highway Institute, then I will ask you in more detail.

A. As a Director of Research I was involved in all of the various activities of the Institute,

[11]

which covers studies of motor vehicle sizes and weights, highway finance and taxation, highway safety, legal matters relating to those aspects of the problem, not that I am an attorney, but it is necessary in our operation, or in the operation of the Institute, that the technical people work very closely with the legal people and vice versa, and in doing our work for the state association, state trucking associations, review of legislation that would be proposed either by the legislature or by interim committees or by administrative people

in the states, review them for the effect upon the industry in the state, or to review proposals, legislative proposals that the industry might be sponsoring, introducing, getting into the subareas of environmental problems, noise, engine emissions, splash and spray, anything relating to the operation of commercial vehicles of all types and sizes operated by all different types of carriers.

* * *

[12]

Q. Does WHI [Western Highway Institute] have joint committees with the Western Association of State Highway and Transportation Officials?

A. Yes.

Q. Do these joint committees often suggest research projects for WHI to undertake?

A. Yes, yes.

Q. Do members of the Western Association of State Highway Officials often cooperate in the conduct of your research projects; that is, WHI's research projects?

A. Yes, very closely.

If I may add further, these projects are usually suggested to cover problems that are of joint interest to the highway people, as well

as to the trucking industry, and so they are very -- they do cooperate, and many times actually participate directly in the work.

Q. Do state and federal highway transportation officials

[13]

request, and upon such request, does WHI supply copies of your research and engineering reports?

A. Yes, rather extensively.

* * *

Q. In the trucking industry what is meant by the term "cubing out"?

A. Well, cubing out, that is the condition where the density of freight that is loaded is low enough so that the container, whatever type of body it might be, is filled before the gross weight limit is reached.

Q. What is meant by the term "weighing out" or "grossing out"?

A. Well, that would be just the opposite, where the density of freight is great enough that the gross weight limit is reached before the container is completely filled.

* * *

Q. Let me ask this question: Is WHI a lobby organization?

A. No, we do no

[14]

lobbying.

Q. Do you only appear before these bodies upon request of an agency?

A. An official request, that is, if I may further explain by that, it can come from any source, just so it is official and not like from the State Trucking Association or the industry.

* * *

A. ...Years ago even some of the commodities that, in themselves, had a low density, they would be packaged in cartons or in such a fashion that the overall density would still remain quite high, but now the trend has been to the packaging of the individual item utilizing packaging materials that is [sic] also lighter, lower in density, styrofoam, if that's one of the things they use, the trend has been in that direction so that, for example, in California the average density of general

freight is now very close, if not there or below, to about 11 pounds per cubic foot.

Q. What can we compare that with? What did it used to be?

A. Perhaps the best comparison might be with the density [sic] required to cube out a typical semitrailer, which is about 15 pounds per cubic foot.

Now, if I may add further, I don't mean that there isn't

[15]

still high density freight carried by general commodity carriers. Many of them transport petroleum products, which is a relatively high-density commodity.

But general freight, which was the point of your question, the trend is toward the lower average density and creating the need for cube.

* * *

[16]

Q. Did the WHI conduct research and publish a report dated February 1970 on the offtracking characteristics of trucks and truck combinations?

* * *

Q. Could offtracking be defined as the amount of variation between the path traversed by a following wheel as compared to the preceding wheel?

A. Yes. But more specifically, it would be the difference in the path of the front wheel and last wheel in the combination, the total offtracking.

Q. This would normally be in connection with some kind of a curve; is that correct?

A. Right.

Q. Now, looking at this document we have referred to, "Offtracking Characteristics of Trucks and Truck Combinations," does Table 7 at page 47 indicate that that [sic] the maximum offtracking of a twin trailer is three feet as compared to four feet for a semitrailer?

A. That is right, yes.

* * *

[17]

Q. And does this table relate to a 165-foot radius curve?

A. That is right.

Q. In other words, there might be a different amount of offtracking if it were a different radius curve; is that correct?

A. That is right. The radius of 165 feet was chosen because it is quite a typical curve on the off and on ramps at the interchanges on the interstate system.

Q. What is the significance of offtracking as it relates to traffic safety?

A. I believe the principal if not the only significance of offtracking is the fact that if there is enough offtracking the vehicle will encroach on the other lane and create a hazard to traffic, on a two-lane highway, coming from the opposite direction or on a multiple lane facility, the vehicle that is traveling in the same direction in that lane.

Q. Is offtracking a standard measure of vehicle maneuverability?

A. Yes.

* * *

[18]

Q. Does it take longer to pass a 65-foot twin trailer than to pass a 55-foot semi?

- A. Yes.
- Q. If the passing vehicle is going 10 miles an hour faster than the twin trailer, how much additional time does it take to pass a twin trailer as compared to a vehicle going 10 miles faster than a semitrailer?
- A. If I recall correctly, less than a second. About two-thirds of a second, thereabouts.
- Q. On a four-lane interstate highway where, by design, passing vehicles do not face opposing traffic, do you have an opinion as to whether or not this two-thirds of a second difference is a significant safety factor; do you have an opinion?
- A. Yes, I do.
- Q. What is your opinion?
- A. I don't think it is of any importance on a multiple lane highway when the vehicles are traveling in the same direction.
- [19]
- Q. In your opinion does the additional ten feet of length, with a twin trailer over a semi, add any safety hazard at all on a four-lane interstate highway?
- A. I don't believe it does.
- Q. Are twin trailers more or less maneuverable than semis?

- A. I believe they are more maneuverable in a number of respects.
- Q. Why are they more maneuverable?
- A. Because of the dimensions of the individual units giving the driver, I believe, better control, less offtracking, as was mentioned, the fact that in an emergency the one trailer could be dropped, or for use in urban areas where the one trailer can be dropped and distribution of freight or pickup of freight could be done with the single 27-foot semi.
- Q. Does the fact that there's less offtracking make it possible for a twin to turn more sharply than a semi without invading another traffic lane?
- A. Yes, yes.
- Q. Do twins have any advantage with respect to a semi, with respect to weight distribution of loads?
- A. Yes, I think quite definitely.
- Q. Why?
- A. It is possible to load the twins so that the rear trailer, the axle weights of the rear trailer would be less than those of the unit in front, which is a desirable feature in connection with braking.

Other factors are involved such as the effect on pavements.

Q. Is this because it is spread out over a greater length?

A. Yes, that is one reason.

Q. Does that avoid a concentration of weight?

A. Yes.

* * *

[21]

Q. Might a semi have a lesser number of axles than the twin?

A. Yes, a semi could have three, four, or five axels, using a 40-foot box.

Q. What is the minimum for twins, minimum axles for a twin?

A. Five.

Q. Is there any difference in the braking dynamics of twins and semis?

A. Yes, very definitely.

Q. Why is this true?

A. Well, I think the principal difference would be the fact that on twins they now use almost universally the fast air transmission valves which allows the air to reach the rear axles at least by the same time they reach the axles further up front which is a very definite

factor in stability in braking and braking distance.

Furthermore, as I mentioned, it is customary to load the rear trailer of twins lighter, and when the axle has less weight on it, you are going to get faster braking at that axle.

* * *

[22]

Q. I show you a document marked Exhibit 3 purporting to be a copy of WHI Research Summary Series No. 2-71 dated December 31, 1971. Is this a true copy of that summary?

A. Yes.

Q. Does this study show that the braking capabilities of the twins meets the requirements of M.V.S. 121?

A. Yes, it does.

Q. What do you mean when referring to M.V.S. 121?

A. That is one of your federal motor vehicle safety standards relating specifically to the braking performance of heavier vehicles.

Q. In the studies of braking with which you are familiar, how does the stopping distance of twins compare with the stopping distance of a semi?

A. All information that we have, all data that we are able to obtain, indicates that all other factors being equal, the twins will stop faster and with greater stability than the semi.

Q. Are you familiar with a document entitled, "Recommended Policy on Maximum Dimensions and Weights of Motor Vehicles To Be Operated Over the Highways of the United States"? [Marked Exhibit 4]

A. Yes, that is the recommended policy of the American Association of State Highway and Transportation Officials.

* * *

[23]

Q. Now, I will ask you to look at Section 2.06.05.

A. Length. Okay.

Q. Yes. Right here.

Does that section of this policy recommend states authorize 65-foot twin trailers?

A. It does.

Q. Do you know whether the Bureau of Public Roads, which is now known as the Federal Highway Administration, approves of 65-foot twins?

A. They do.

Q. Does the Federal Highway Administration--I'm sorry. Did the Bureau of Public Roads previous [sic] approve of 65-foot twins?

A. Yes.

* * *

Q. Do you know whether the Bureau of Motor Carrier Safety approves of 65-foot twins?

A. I am certain of that. They do.

* * *

[24]

Q. From your background as an engineer and highway researcher, have you formed an opinion as to whether or not 65-foot twins are as safe as 55-foot semis on divided interstate highways?

A. I have.

Q. What is that opinion?

A. I believe that all factors considered, the twins are a safer type of vehicle than the semi.

* * *

[25]

Mr. DeWitt: Now I show you what has been marked Exhibit 5, purporting to be a WHI Research Summary Series 1-74 dated February 25, 1974. [Entitled "Consumption of Diesel Fuel in Larger Combinations of Vehicles"]

Q. Can you identify this as such a Research Summary Series?

A. Yes. It is my own work.

Q. Did you do the research on this?

A. Yes.

Q. In your opinion, would permitting the use of twins by a state have any impact on fuel consumed by trucks in that state, assuming that the same amount of cargo was being shipped through that state before and after the permission to use twins had been granted?

A. There would definitely be a savings in fuel.

Q. Why would that be true?

A. Because of the additional one-third capacity in the twins versus the semi, and the increase in fuel consumed per trip would not be in the same proportion as the increase in capacity, and while there is an increase in fuel per trip, the number of trips would be reduced, with the result that your total fuel required to move a given volume of freight would be less.

* * *

CROSS EXAMINATION

By Mr. Harriman:

* * *

[28]

Q. Well, this condition of splash and spray on the windshield of the passing vehicle would be more significant in passing a long vehicle as compared to passing a short vehicle, would it not?

A. Yes.

Q. And that is the length of time that the passing vehicle is engaged in the passing process which would be increased in passing a long vehicle over passing a short vehicle?

A. Dependent upon whether the spray pattern and the intensity of spray continues for that time period or that length of the vehicle.

The tests have demonstrated that certain types of vehicles, the principal effect is actually up at the tractor, and the effect diminishes as you go back past the other wheels, and this condition varies with the type of vehicle, so it would not be possible to make a general statement in answer to your question that in passing the doubles it would

be a more hazardous condition because of the spray than in passing even a shorter vehicle of another type.

* * *

FURTHER EXAMINATION

By Mr. DeWitt:

* * *

[35]

Q. With respect to this problem of jackknifing which you mentioned, does the second trailer on a twin do anything to either help avoid jackknifing or make jackknifing more likely when braking is being done, stopping the vehicle?

A. All tests have indicated or shown rather conclusively that the addition of another trailer or trailers tends to dampen down the effect of jackknifing of the entire combination.

Q. Is that what you mean by better stability during braking; is that one of the things?

A. Stability during braking is defined as the ability of that vehicle to remain

[36]

within its lane and not encroach upon the lane that might be occupied by another vehicle.

Q. And jackknifing, of course, if it is sufficient, would move it into the next lane?

A. Right

Q. Is there a technical or engineering reason for this phenomenon?

A. Yes, I believe so.

Q. What is it, in your opinion?

A. It is the way in which the forces at the various points of articulation work to counter the tendency of the wheels or the axles ahead to deviate from a straight path.

Q. Is inclement weather, such as conditions of snow, ice, high wind, any more dangerous for a twin than for a semi?

A. I don't believe so.

* * *

[Jurat]

MYERS DEPOSITION, Exhibit 1

Fred J. Myers

Oregon State University, 1930-35

Civil and Highway Engineering majors
BS in Civil Engineering, 1935

Oregon State Highway Department, 1935-42

Assistant Traffic Engineer on termination

Work on all phases of motor vehicle ownership and operation, including accident analysis, highway safety, traffic volume and composition, equipment performance, highway transportation economics, motor vehicle taxation, and related subjects.

United States Government, 1942-52

Bureau of Investigation and Research, 1942.
Highway use and tax studies.

Office of Price Administration, 1943-46.
Automotive Supply Rationing Division.
In charge of program of car-sharing at 40,000 war plants.

Bureau of Public Roads, 1946-52. Division of Research. Engineering assistant to Chief of Highway Finance and Tax Division.

On leave from Bureau of Public Roads 11 months in 1951 on Point IV program in Republic of Columbia as Highway Plan-

ning Consultant to Minister of Public Works.

Transferred to Western Regional Headquarters, Bureau of Public Roads, San Francisco, June, 1952. Reviewed Federal Aid highway programs, plans, and specifications in 13 Western States. Resigned when Western Headquarters, BPR, was abolished.

While with Bureau of Public Roads, served on two committees of Highway Research Board.

1. Economics of motor vehicle size and weight.
2. Cost of Motor Vehicle Accidents.

Western Highway Institute, 1953-75

Retired upon reaching age 65 in March, 1975

Currently self-employed. Highway Transport Research Service

Registered professional engineer, No. 2460, Washington, D.C.

MYERS DEPOSITION, Exhibit 3
[Letterhead of Western Highway Institute]

December 31, 1971

No. 2-71

CALIFORNIA BRAKING TESTS SHOW
BRAKE BALANCE PLUS FAST AIR TRANSMISSION
AND RELEASE MEETS BRAKING PERFORMANCE
REQUIREMENTS OF FEDERAL MOTOR
VEHICLE SAFETY STANDARD NO. 121
FOR PRIMARY SYSTEM

[1]

The lower accident rate for the conventional western doubles combinations indicates its superior safety characteristics. When operated with properly balanced

[2]

brakes which are applied with a minimum of lag time, these combinations more than meet the braking performance requirements of Federal Motor Vehicle Safety Standard No. 121.

MEYER'S DEPOSITION, Exhibit 4

RECOMMENDED POLICY ON
MAXIMUM DIMENSIONS AND WEIGHTS
OF MOTOR VEHICLES TO BE OPERATED
OVER THE HIGHWAYS OF THE
UNITED STATES

Prepared by The Subcommittee on
Highway Transport, The American
Association of State Highway and
Transportation Officials

Officially Adopted by the
American Association of State
Highway and Transportation Officials

December 7, 1964

Revised January 15, 1968

and February 23, 1973

and February 18, 1974

[13]

2.06.05 No other combination of vehicles shall consist of more than two units, except that one truck-tractor semitrailer may haul one complete trailer, and no such combination of vehicles,

including any load thereon, shall have an overall length, inclusive of front and rear bumpers, in excess of 65 feet.

DEPOSITION OF THURMAN D. SHERARD

Filed October 3, 1975

[Caption Omitted in Printing]

DIRECT EXAMINATION

By Mr. DeWitt:

[1]

Q. What is your occupation?

A. Civil engineer.

[2]

Q. Mr. Sherard, are you the individual designated by Western Highway Institute as the person to testify on behalf of the Institute

in connection with this particular case?

[3]

A. Yes.

[9]

A. ...Of course, I have done work in fields of power and traction and stability and offtracking, acceleration, basically the various characteristics that trucks have in operating on the highways, and I think primarily my main assignment has been to investigate the safety and the feasibility of increased sizes and weights.

[10]

Q. I am now showing you Exhibit 2 purporting to be a document known as Research Committee Report No. 5, entitled "Splash and Spray Characteristics of Trucks and Truck Combinations."

* * *

Is this document one which was prepared by the Western Highway Institute, and is it properly designated as Research Committee Report No. 5?

* * *

A. Yes, I supervised the tests made by the Western Highway Institute contained within that report.

Q. What is splash and spray, as referred to in this report?

A. Well, vehicle splash and spray is really two separate but rather interrelated factors. Splash is the large droplets that are thrown outwardly from the tire-pavement contact area by the tire as it hits the surface of the road and is caused mainly by ponding and puddling due to deformations in the highway surface

[11]

or an unusually large amount of water on the highway.

Spray is those larger droplets that are carried around by the tire, by adhesion to the tire surfaces, or splashed by the tire against

the surfaces, various surfaces of the truck, which are atomized, blasted into small particles, and then are carried outwardly by air currents as spray.

There's also some spray that is thrown off, that is splashed, broken into spray by the opposing air currents at a tandem axle, and then thrown outwardly as spray.

Q. Now, in this study which is set forth in Exhibit 2, did you, among other things, compare twin trailers, semitrailers, tank semitrailers, and other vehicles as to their splash and spray characteristics?

A. Yes, we did this at Fort Stockton.

* * *

[12]

Q. Now, does this report state, if you will look at page 85, and I quote, "The configuration rated as creating the least splash and spray was the typical western doubles combination." Do you find that on page 85?

A. Well, let me look here.

Q. Okay.

A. Yes, "The configuration rated as creating the least splash and spray was the typical western doubles combination."

Q. And when you say "western doubles combination," is this just another term for 65-foot twin trailers?

A. Yes.

Q. Now, did you, subsequent to the study we have just been talking about, coordinate and supervise a subsequent test at Madras, M-a-d-r-a-s, Oregon?

A. Yes.

Q. What were your findings from the Madras test?

* * *

[13]

A. Well, the test showed that the twins put out about 20 percent less splash and spray as did the tractor-semi.

It also showed that the tractor-semi, when it was equipped with the best suppression device available, put out as much splash and spray as the twins did without any suppression devices whatsoever.

* * *

Q. Now, have your test findings been verified by other research agencies?

A. Well, at Madras, the National Highway Traffic Safety Administration hired Southwest Research Institute to do some studies on splash and spray, and I think mainly to check the work that we had done.

They asked us if we would allow Southwest Research Institute to come up to Madras and observe, and also take measurements with their own instruments on our tests, which was done, and the report that they issued, that Southwest Research

[14]

Institute issued, verified the findings that we had on the splash and spray effects.

* * *

Q. I now show you what has been marked as Exhibit 3, purporting to be the final report of Southwest Research Institute.

Is this a true copy of the report of that institute on these tests which were run by you at Madras?

A. Yes.

Q. Would you be kind enough to look at page 19?

A. Okay.

Q. Would you refer to paragraph 6 there? Does this report state:

"The special double- and triple-trailer rigs generated about the same amount of spray, which was approximately 20 percent less than the standard bogie vehicle"?

A. Yes.

Q. Now what is meant by a bogie vehicle, and what was the bogie in this instance?

A. Well, a bogie vehicle is a standard by which you compare the performance of other vehicles, and the bogie vehicle in this instance, as in most of our studies, is a tractor-semitrailer, because it is pretty universally known throughout the world, you might say, and it

[15]

travels on about all highways and all weather conditions, and it's a good standard.

Q. This is a semi that we have been talking about, the 55-foot overall length?

A. Yes, this is the 3-S2.

Q. Now, did your observations agree that the twins generated about 20 percent less spray than the bogie semitrailer?

A. Of course, our observations at Madras agreed with the instrument findings pretty well.

At Fort Stockton we had ten observers placed in three different positions along the test track. Each one of these observers rated the pattern width, pattern height, the density of the pattern of each of the configurations that we ran there, and the results of these ten observers, their unanimous opinion was that the twins put out less spray than what the tractor-semitrailers did, and it was noticeably less.

Q. Now, did that take into consideration the fact that the twin would be ten feet longer so that the person passing a vehicle would take somewhat longer to pass that vehicle?

A. Well, what you are involved in on passing is the width of the pattern, so that if you are in the other 12-foot lane, does the spray pattern reach out far enough to cause you trouble, the height of the pattern, is the spray pattern high enough to really hit you in the windshield, and is the pattern dense enough so that you have difficulty in seeing ahead of the vehicle that you are passing?

The patterns of the twins were not as wide or not as high, which meant that the

passing car would be more outside of the affected zone than they would with a semi. It also wasn't as

[16]

high, so that it wouldn't have the effect on your windshield, and it also wasn't as dense, so that you could see through the pattern when you were passing.

There's no doubt that the extra length means that you have a little additional time, say, two-thirds of a second, or around in there, where you are in the zone, but the density is very important on this.

Q. I show you page 14 of Exhibit 2, which is Splash and Spray Characteristics of your WHI Research Committee Report No. 5, which is entitled "Typical Air Flow Patterns for Tractor Truck-Semitrailer Combination."

Would you explain the significance of that diagram?

A. Well, this is a tractor-semi. However, it isn't the same tractor-semi that we are referring to here. This is a single axle--or rather a two-axle tractor pulling a single axle box, so it doesn't have the same effect, as far as splash and spray has, of the semi that we are talking about here, because it doesn't have the tandem axles.

But your aerodynamics, basic aerodynamics, is probably close to the same.

You can see on the diagram that you have a wind current that goes over the top of the tractor and down between the tractor and the box about at the tractor drive axles, and you have another air current that comes in underneath the tractor and gets in there underneath the box.

What happens here is that because of the oscillation of your box up and down, you have a blasting effect which forces this air outwardly at your wheels, so this effect throws the

[17]

spray out from the wheels laterally from the box.

You also have an air current that, as it goes around the side of the box, it has a circular motion there which causes turbulence, and in a rain it would cause some spray.

Also, another current at the rear of the box, as the air falls over the back of the box like a waterfall, and it mixes around and causes a pattern more or less directly behind the vehicle. That's this one.

This applies to this one particular configuration.

Q. Now, with respect to your findings generally, is the spray problem worse at some points of the vehicle than at others?

A. Yes, our tests have all shown that the worst location is at the drive axles of a tandem axle tractor.

* * *

A. What a lot of people see is that the spray is at the rear end of the vehicle.

It originates mainly at the tractor, tractor axles, but because of the velocity of the vehicle, the spray pattern appears to be most dense or most troublesome at the rear. But actually the problem originates mostly at the tractor drive axles where you have opposing air currents between the two tandem axles, and you have this air over the top of the tractor that gets down underneath there, and underneath the tractor, it

[18]

gets there, and this all gets together at that one point, and then it causes an air blast or air turbulence that throws this outward. It is

thrown outward because of the velocity of your vehicle.

* * *

Q. Would those wheels on the twin, at the rear of the first of the two 27-foot trailers, help to squeegee additional water out of the way?

A. Yes, you have this advantage on the twins. You have the fact that your box is generally closer to your tractor, so there's not as much of an air space in there for the air to get down and get underneath, and you also just have a single drive axle which you don't have the opposing air currents that are caused by a tandem axle, and you also have the fact that you have more axle spread over a greater distance to splash that water out of the wheel path, so that by the time you get to your last box in a straight-line condition, your last trailer is traveling on a lot drier surface.

The other advantage is the length of the twins, which is sort of like, well, the air currents are sort of like water, and you notice the water going over waterfalls, you have an

[19]

upstream effect to where your water will sort of flatten out before it gets to the waterfall. You have an upstream effect on air current so that, because of skin friction, this effect, it actually pulls the air currents in tighter to the sides of the vehicle, which accounts for the reason that the width of our spray patterns is less.

Q. Theoretically, even if you had tandem wheels on a double, these other factors you have mentioned should make the spray problem less than a semi with a tandem-wheels driver; is that correct?

* * *

A. That's correct, and the studies at Fort Stockton proved that to be the case.

Q. I wasn't sure about that. You did actually test that out at Fort Stockton?

A. Yes.

Q. What is a principal standard of maneuverability for a motor vehicle?

A. Principal standard?

Q. A principal standard.

A. Offtracking would be probably the major principal standard.

[20]

* * *

Q. Are twins more maneuverable than semis?

A. Well, they are more maneuverable, except in the backup.

Q. Is there much occasion for vehicles to back up on an interstate highway, divided highway?

A. No, not with your eight-foot shoulders, emergency shoulders that are a part of the interstate standard.

Q. What is meant by fishtailing?

A. Well, that's an expression we very seldom use, but it refers to the lateral oscillation or the deviation from a straight line at the rear end of a truck or truck combination.

Q. Is there any significant difference in the tendency to fishtail between semis and twins?

A. Well, the twins have one more point of articulation, but all of our tests have shown that there's very little difference between the way that the rear of the two combinations--both combinations have no problem meeting the federal standards which require that the

[21]

lateral deviation shall not exceed three inches on either side of the wheel path.

Q. What is meant by jackknifing?

A. You have really two types of jackknifing. You have a tractor jackknifing and you have trailer jackknifing. Trailer jackknifing is sometimes referred to as trailer swing. Tractor jackknifing is when the drive axles of the tractor lose their bite on the road or lose their traction and the tractor gets out of position and is overridden by the trailer.

The trailer jackknife, or the trailer swing, is when the tractor maintains its traction, but the wheels of the trailer lose their traction, and they they override the tractor.

Q. Now, with respect to either of these kinds of jackknifing, do twins have a lesser or greater tendency to jackknife than do semis?

A. The studies that we have made and the tests that I have observed show that the twins are less susceptible to jackknifing than semis.

Q. What is meant by dynamic stability and braking stability?

A. Well, dynamic stability is the stability of the vehicle as it travels down the highway under power, yes, under power.

Braking stability is the stability of that vehicle during a braking condition.

Q. How do the dynamic stability of twins and the dynamic stability of semis compare?

A. Well, as I mentioned before, there's very little difference in the two.

Both of them meet all the dynamic stability standards.

* * *

[22]

Q. Why is it; is there a reason why twins have a lesser tendency to jackknife than semis?

A. Well, there's several reasons.

Now we are talking about under what condition?

Q. Well,--

A. Under the braking condition?

Q. Yes, that's when jackknifing most frequently occurs, isn't it, in braking?

A. Yes.

Well, there are several reasons. Probably the most important factor is the lateral distribution of side forces relative to the center of gravity which you have on the twins. You have your tires on the ground rather uniformly spaced over a greater

distance and your center of gravity in relation to this is--well, provides for a more stable condition.

One of the other reasons is that the second trailer acts as rather a stabilizing fin, you might say.

It has a tendency to swing in the opposite direction than the trailer in front swings, and thus it cancels the deviant forces, the vector forces that you get at your tractor and at your second trailer.

The other factor is length, because length is--the longer you have, the more resistance you have to side forces, so the ten-foot additional there would have some effect there.

Q. Now, how does the braking stability of twins and the braking stability of semis compare? Is this essentially what you have just discussed?

A. Yes. I think what I said was that under braking, that twins are more stable than semis.

[23]

This is especially true in the tests we have made and the tests that the National Safety Council has made there at Steven's

Point, that it is even more noticeable on low coefficient surfaces like wet or icy.

* * *

[25]

Q. If the same amount and type of cargo is shipped in a given state, both before and after that state permits the use of twin trailers, will there be an increase or will there be a decrease in truck traffic on the highway if twins are permitted? I am speaking of truck traffic now.

A. Well, twins will--at the same density of freight, where you would cube out and gross out at the same time, twins would have a reduction of about, say, 25 percent in the amount of traffic on the highway.

* * *

[26]

Q. Can either a twin or a semi generally stop at the same distance it takes a passenger car to stop if they are going at the same speed as a passenger car?

A. Not on a dry pavement.

They probably can do it faster on ice or snow pack, but not on dry pavement.

Q. What is the reason for this?

A. Well, it's the amount of energy you have to stop, or force, and the equation for that is mass times velocity squared.

So if you take your passenger car and your truck traveling at the same speed, and your velocity squared is the same, it is

[27]

constant, but you take a car, 6,000 or 8,000 pounds versus a truck, 70,000 pounds, you have a tremendous lot more force to stop, which has to be dissipated through the brake drums or through the tire contact point.

On dry pavement, there's just not any way that I know of, or I don't think anyone knows of, how you can do that, unless you put enough--unless you put enough axles and tires on the vehicle that you could dissipate that heat much more, at a much more rapid rate, and then conceivably, theoretically, you could stop them in the same distance.

* * *

[28]

Q. Are the longer stopping distances of these trucks, both twins and semis, as compared to passenger cars, compensated for in any way?

A. Well, your driver of your truck generally is a professional driver, and his reaction times are quicker. He's trained.

He also is sitting up where he can see farther ahead, so he can see trouble before it occurs, at a greater distance, so I think that there's a compensation there.

Q. Generally, is there more or less of a tendency of trucks to swerve and slide in braking than there is of passenger cars?

A. Well, that is quite a question.

I would say that a passenger car, under what you call panic braking, has some problems in that there is not enough weight on his wheels to get the friction that is necessary, and they will go out of control and spin around; whereas a truck, maybe

[29]

at that same speed, that's got a load on his axles, will get a better bite on the road surface and will be able to stop in a straighter line.

And he also has a larger area on his footprint. But, you know, you can get into a lot of variables there.

* * *

Q. Do you have an opinion as to whether the additional 10 feet in length of a twin over the length of a semi, both operating on a four-lane divided interstate highway, constitutes a safety hazard?

A. I don't think it does.

Q. That is your opinion?

A. That is my opinion, that

[30]

it doesn't. We are talking about an interstate highway?

Q. Right.

A. Four-lane divided highway?

Q. Correct....

* * *

[32]

Q. Are twins easier to load and unload than semis?

A. Yes.

Q. Why is this true?

A. Well, it's purely a matter of the depth of the box.

You got 40 foot of depth. You have to put your load--you have to carry it 40 feet to

the back of the box to start building up your load, and if you unload it, you have to pull out all this other freight to get to the back. It is just a matter of distance.

That 27-foot distance is a lot more convenient and easier to handle than the 40-foot box. Another thing is that twins

[33]

allow the operator to split his load for two destination points and load one cargo in one box and one cargo in the other box. All he has to do is drop off his one trailer at this destination point and maybe pick up another box at that point, and take the other trailer on without any stops.

If he has the two loads in one box, why, then it's a little more inconvenient and harder.

Q. In your opinion will the use of twins have any effect on safety in making pickups and deliveries in the downtown areas?

A. Well, normally I think this is generally the case with twins. The twins don't make downtown deliveries. They are taken into the terminal or the staging area and they are taken for downtown deliveries as a separate unit. So, in other words, you've got a

tractor pulling a 27-foot box, one 27-foot box, so this is a lot less length and it is a more maneuverable vehicle in the downtown area than taking a long 40-foot box down into the downtown area, so it would have definite advantages, as far as safety.

Q. And would it also have advantages as to convenience?

A. Oh, yes.

Q. Both to the truckers and the public in the downtown area?

A. Oh, yes.

Q. Do you have an opinion as to whether or not a loaded twin would be more dangerous than an empty twin in traveling on a four-lane divided interstate highway?

A. Be more dangerous?

* * *

[35]

Q. Do you have an opinion as to whether or not a twin would be more dangerous or increase the safety hazards of driving on a divided interstate highway over driving a 65-foot automobile carrier on the same interstate highway?

A. Yes. There wouldn't be any difference. The twins wouldn't be any more of a hazard than your 65-foot transporter.

Q. Do you have an opinion as to whether or not a twin would be any more dangerous or increase the safety hazard when traveling on an interstate divided highway as compared to an unescorted mobile home traveling [sic] on the same highway, if you assume that that mobile home has a width of 10 feet and an overall length, with the tractor, of 65 feet?

A. Yes, I have an opinion.

Q. What is that opinion?

A. That the mobile home 10 feet wide, 65 feet long, is going to be more dangerous than the twins.

Q. Why is that?

A. Well, ordinarily the mobile home--well, let's take width, for example. You have an eight-foot width on the twins versus a 10-foot width on the mobile home, which means that you have two feet less distance between passing vehicles. You've got, on a 12-foot highway, you've got one foot less on either side with the mobile home. You've

[36]

got two feet left on the side with the twins.

The aerodynamics of the thing, you have more of a frontal area on the ten-foot wide mobile home, which has an effect on stability, unless these mobile homes are carried on a special piece of equipment. I haven't seen any of them that have wheels or brakes or axles that are really specifically designed for highway speeds and that type of operation...

* * *

CROSS EXAMINATION

By Mr. Harriman:

* * *

[38]

Q. That is, you were not testing the performance of splash and spray as experienced in a rainstorm, itself?

A. No, we were isolating, as I said, we were isolating the rain drops hitting the windshield and--

One of the main reasons we did it that way is because when you measure, when you are measuring what the vehicle, itself, produces, if you have the extraneous effect of

rain drops in there, you really don't know what the vehicle is doing, so you can't compare one vehicle against another vehicle, so you are eliminating all outside--these instruments measure the

[39]

water droplets in the air at the point where the driver's eye would be in a passing vehicle, approximately where the driver's eye would be in a passing vehicle.

* * *

[60]

A. ...I think it's relatively--it's a relative safety. If you can stop the truck safely in the same distance that you can stop an automobile that's the most desirable way.

But, practically, if you stop that truck, or if you could stop it in the same distance that an automobile could stop, you probably just--you would create an unsafe condition

[60A]

because of loss of steering control transfer of load, breakdown in your structural integrity, and it would probably be a much more unsafe condition.

* * *

[Jurat]

* * * * *

SHERARD DEPOSITION, Exhibit 2

* * *

SPLASH AND SPRAY CHARACTERISTICS
OF TRUCKS AND TRUCK
COMBINATIONS

Research Committee

Report No. 5

Western Highway Institute

* * *

Comprehensive controlled tests of nine different splash and spray suppression devices and thirteen separate truck configurations were conducted in July of 1972. This is the last test included in this report. It may have provided the clue by which the total problem, rather than just the problem at the rearmost wheels, can be solved.

* * *

[70]

Section 3. Ft. Stockton Test, July, 1972

* * *

[72]

d. Test Equipment

Ten different types of trucks, truck-tractors and semitrailers allowed the evaluation of fifteen different configurations which represent the basic characteristics of a majority of commercial vehicles in daily operations on major highways.

* * *

[91]

Summary and Conclusions

* * *

[92]

(4) Of eleven typical truck and truck combination configurations, the truck tractor-tank body semitrailer was rated as having the most severe splash and spray characteristics. In second and third positions respectively in the most severe category were the autotransporter and the truck tractor-40-foot van semitrailer combination.

The typical 65-foot doubles combinations was rated as creating the least splash and spray.

* * *

SHERARD DEPOSITION, Exhibit 3

Prepared for the Department of Transportation, National Highway Traffic Safety Administration, under Contract No. DOT-HS-5-01040. The opinions, findings, and conclusions expressed in this publication are those of the authors and not necessarily those of the National Highway Traffic Safety Administration.

* * *

[17]

The results of the photometer measurements compare closely with those results obtained with the densitometer. Here again, the PABS device proved to be most effective in reducing spray. To summarize the results of the photometer data, the PABS device reduced spray by 15 percent; the Reddaway device was next at 9 percent, followed by the Roberts device at 5 percent. The Koneta device was last with 2 percent. The triple- and double-trailer vehicles produced the same amount

of spray, which was 20 percent less than the bogie vehicle.

* * *

DEPOSITION OF ARCHIE H. EASTON

Filed August 20, 1975

[Caption Omitted in Printing]

* * *

DIRECT EXAMINATION

By Mr. Axelrod:

* * *

[3]

A. I am Professor at the University of Wisconsin in Madison in the Mechanical Engineering Department, and also a professional engineer operating out of Easton and Associates, which is a consulting engineering firm in accident reconstruction and product liability.

At this time I'm not on the University payroll and I'm not on the Easton and Associates' payroll and I'm not being retained by anyone. I am here as an individual, a professional engineer, as a public servant.

* * *

[4]

Q. What is your particular area of interest as a mechanical engineer and as a professor of engineering?

[5]

A. Basically automotive engineering. I teach in thermodynamics which, of course, is the conversion of heat into power and the reverse cycle, which is refrigeration; and also I teach a course in vehicle testing; and up until two years ago I taught in highway engineering and transportation in the Department of Civil Engineering.

Q. Have you served as a consultant to any governmental bodies with respect to highway safety or automobile accidents?

A. Yes. The National Cooperative Highway Research program and the National Highway Safety Bureau: those are two national.

* * *

[6]

Q. Could you describe both the tractor semi-trailer combination and the 65-foot twin trailer combination in terms of engineering and mechanics?

A. The 55-foot trailer combination is a tractor, which is

[7]

the three-axle vehicle; and the second vehicle of that train is a semi-trailer, which is called S2; so that the public road designation for that is a 3-S2, meaning a three-axle tractor and a two-axle semi-trailer.

* * *

Q. Can you describe the dimensions of the 65-foot twin trailer combination in terms of its component units?

A. Yes; the 3-S2 unit: the unit is 55 feet overall and it consists of a semi-trailer 40 feet long and a three-axle tractor twin in combination, total 55 feet. The gross weight that this vehicle is able to carry legally is 73,000 pounds.

Going now to the 2-S1-2 unit, which is the twin trailer or double-bottom unit, it consists of two or three units actually: a tractor, on which there is a single; and the tractor is a two-axle tractor; followed or connected to a 27-foot long single-axle trailer; to

[8]

which is attached a two-axle pull trailer, 27 feet long: this makes a total length of 65 feet, and it has the legal gross chain weight of 73,000 pounds also.

Q. Now, in addition to the fact that there's a ten-foot difference in length between the semi-trailer combination and the twin-trailer combination, are there any other significant mechanical differences between the two units?

A. Yes.

The difference in the two tractors: a three-axle compared to a two-axle--a three-axle being in the 3-S2 unit; a 55-foot unit. And the tractor in the 65-foot unit is a two-axle trailer. That's a difference in the number of axles.

Then, the first trailer in the double-bottom unit and its tractor is connected by a fifth wheel.

Likewise, the trailer and tractor in the 55-foot unit are connected by a fifth wheel.

In the 65-foot unit there is an additional pivot point between the rear of the first trailer and the full trailer following it.

Those are the basic mechanical differences between the two units.

Q. As a result of your work as an automobile and truck engineer, do you have an opinion as to the overall

[9]

safety in operation between the tractor semi-trailer combination and the 65-foot twin trailer combination?

A. Yes, I do.

Q. What is that opinion?

A. That opinion is that the overall safety of the two units is not significantly different.

Q. What physical aspects of the 65-foot twin trailer combination make it as safe as the 55-foot or semi-trailer combination presently allowed on Wisconsin roads?

* * *

A. First of all, with respect to braking, the twin trailer combination, according to National Safety Council tests, on a straight-away, is able to stop in a shorter distance than the 65-foot [sic] unit. The fact that there are two pivot points on the 65-foot unit and only one in the 55-foot unit make it capable of turning on the shorter radius without going out of the lane of travel. It also makes the unit more

maneuverable from the standpoint of avoiding a potential accident: those are the two items that come to mind at this time.

[10]

Q. Have you authored any engineering studies with respect to the 65-foot twin trailers, Professor Easton?

A. Yes; I have been involved with the National Safety Council Committee on Winter Driving Hazards since 1947; and that committee studied the twin trailer combination 65-feet long: that was in 1968. And I was involved with the writing of the 1968 report.

* * *

[11]

Q. Before we get to table one, I show you at this time a report entitled "Jackknifing of Articulated Vehicles on Slippery Surfaces," authored by you, and dated February 1, 1972; and I ask you if that is, in fact, your report [Handing to witness]?

A. Yes, it is.

* * *

Q. What is the relationship between the 1972 report, which you authored, which was Exhibit No. 3, and the National Safety Council report, which is Exhibit No. 4?

A. The relationship is this: that at that time there were

[12]

a number of agencies asking me the comparative safety between the 55-foot unit and the 65-foot unit; and there had not been any tests directly made--directly comparing these units on ice.

And so, in order to answer these questions, I prepared a paper dated February 1, 1972, projecting or interpolating from the data given in the 1968 report of the National Safety Council; and from this data given in the tables, one, two, three and four, I have offered an opinion as to the relative safety of the 55-foot unit and the 65-foot double-bottom unit.

Q. And what is that opinion as expressed in that report, which is Exhibit No. 3?

A. General conclusion then is that the safety of the 55-foot tractor semi-trailer unit and the 65-foot twin-trailer combination is not significantly different.

* * *

[19]

Q. Turning to another subject, Professor Easton, some people have expressed concern over having to pass a twin-trailer truck on the Interstate Highways; these

[20]

trucks are 10 feet longer than the 55-foot semi units, which are now commonly used.

Approximately how much longer would it take an automobile to pass a 65-foot twin trailer truck as opposed to a 55-foot semi-trailer truck, considering that the car is going 10 miles faster than the twin-trailer vehicle?

A. It would be .68 seconds.

* * *

[21]

Q. In your experience with accidents, and accident reconstruction, what factors are most relevant to the severity of an accident?

A. Speed and mass, weight.

Q. Does the length of a vehicle have any significance to the severity of an accident?

A. No, it does not. The energy possessed by a vehicle of the same weight traveling at the same speed is identical regardless its length.

Q. If, for example, I was traveling in a Volkswagen and I collided with a 65-foot twin-trailer with a gross weight of 50,000 pounds, would I be any worse off than if I hit a 55-foot semi-trailer with the same gross weight of 50,000 pounds?

A. No.

Q. Why not?

[22]

A. Because the energy on both units, which is based on the weight in pounds and the velocity and miles-per-hour squared over a constant would be the same, because, in the question that you posed, the weight you gave as 50,000 in each case, at the same speed, the velocity would be the same; so that the energy of both units would be identical; and it's the energy that causes damage.

* * *

CROSS EXAMINATION

* * *

By Mr. Harriman:

* * *

[41]

Q. The thing that I was going to point out to you was: some of the literature regarding the use of these long trucks indicates that they are loaded--that the long trucks can be loaded up almost to full capacity, at a total of 73,000 pounds, where a 55-footer, which has only a 40-foot trailer, it can't be loaded up to the length of the 65-footer, because you run out of space for the extra freight. Here you have two trucks fully loaded, but which have different weight, and the 55-footer would be lighter; and the lighter truck collision would be, in theory, less severe; at least, in theory, the blow would be a lesser one?

A. We were previously talking about collision with a Volkswagon. Energy-wise, you are absolutely correct. The energy to be dissipated, of course, with the heavier truck is bound to be greater, because the kinetic energy of any vehicle is equal to the weight times the velocity squared over 30, with the velocity in miles-per-hour; so that from any energy standpoint, yes. If you reduce the weight, you reduce the energy.

However, if you look at the collision and we take the Volkswagon; let's take a Cadillac, for example, which it takes a certain amount of energy to crush the Cadillac; and the light truck would still possess more

[42]

than enough energy to demolish the Cadillac, which if you wanted to get into something facetious, I suppose you could say you would be just as dead hit by the lighter truck as you would by the heavier one.

* * *

REDIRECT EXAMINATION

By Mr. Axelrod:

[60]

Q. In terms of jackknifing, I take it that the sum and substance of your answers to Mr. Harriman's questions, in terms of jackknifing, there is no significant difference between the twin-trailer unit and the 55-foot semi-trailer unit?

A. That is basically correct.

Q. And likewise, I take it from your answers to Mr. Harriman's questions with regard to crosswinds, that there would be no significant

difference in terms of crosswinds between the 65-foot twin-trailer and the 55-foot double-bottom?

A. Well--

Q. Of course, my questions assume proper loading.

A. Yes, Yes, if the vehicles were loaded, then-- unless the winds were very, very high and the vehicles shouldn't be out on the highway anyhow. So, with a loaded vehicle, it would get--either vehicle would slide sideways, even on ice.

[61]

Under normal wind conditions--it's in any van-type of vehicle--it's the unloaded ones that have the problem.

DEPOSITION OF LEON S. ROBERTSON

Filed October 20, 1975

[Caption Omitted in Printing]

DIRECT EXAMINATION

By Mr. Harriman:

[3]

Q. Will you state your name, please?

A. Leon S. Robertson.

Q. Your business address?

A. Watergate 600, Washington, D.C., 20037.

Q. What is your occupation?

A. I am a senior behavioral scientist for the Insurance Institute for Highway Safety.

Q. Just briefly would you summarize your education?

A. I have a Ph.D. from the University of Tennessee, undergraduate degree from Carson-Newman College, and a post-doctoral fellowship from Johns Hopkins University.

Q. Will you briefly describe your employment and experience?

A. For the past five years I have been in my present position with the Institute; for the prior four years I was on

[4]

the faculty at Harvard Medical School; the year prior to that was the postdoctoral year at Johns Hopkins; for three years prior to that I was assistant professor at Wake Forest University.

- Q. Tell us briefly what is the organization and function of the Insurance Institute for Highway Safety.
- A. The Insurance Institute for Highway Safety is a non-profit research unincorporated association. Our sole mission is to do research and education into the damage to people and property in association with motor vehicles.
- Q. How is that Institute funded?
- A. We are sponsored by the major auto casualty insurance industry through their trade associations and some individual companies.

* * *

[13]

- Q. Directing your attention to page 10 of this study, near the top, third line from the top, there is a sentence that reads, "Generally, the greater the relative difference in size of the vehicles involved, the greater was the ratio of incidence of death in smaller, relative to larger, vehicles." Would you explain that conclusion and how you arrived at it?
- A. We classified the vehicles in terms these are the multiple vehicle crashes, that is, where two or more vehicles crashed into one

another, and looked at the ratio of the deaths in the smaller vehicle to the deaths in the larger vehicle and found that the greater the difference in size of the vehicles the greater was the ratio of death in smaller vehicles to larger vehicles.

- Q. I point out to you the next sentence. It says, "In Fatal crashes between trucks and large cars, death occurred three times as often in the cars as in the trucks." Perhaps that needs no explanation, but do you wish to expound on that?
- A. Well, if you look at those cases in which a truck and a car crashed, the death occurred three times more often in the car than in the truck.

CROSS EXAMINATION

By Mr. Axelrod:

* * *

[22]

- Q. So there is no data in your study to distinguish between truck-semitrailers, which would be one tractor pulling one trailer, and the tractor pulling two trailers, which are

[23]

commonly referred to as twin trailers?

A. That is correct.

* * *

[52]

Q. Would it be your recommendation that trucks--semitrailers be taken off the highways?

A. I don't think that would be a reasonable recommendation in terms of current economics. I might add that I would recommend where it is feasible that they be separated from smaller vehicles. For example, if there are two parallel

[53]

roads running from one point to another point it would be perfectly reasonable to have the trucks run on one road and the cars run on the other.

Q. So, we would have two interstate highways between Minneapolis and Chicago instead of one, for example?

A. Quite often there are roads paralleling interstate highways.

Q. Of course, the problem with your using the parallel roads to the interstate highways is then your accidents would increase because of

intersection problems and pedestrian problems and there are trade-offs, aren't there?

A. I am not sure that is so. I have no data to indicate that the total number of accidents on interstate relative to another road would make any difference.

* * *

[58]

Q. Assuming the problem exists, that the vehicle mix on the highway results in danger to the smaller vehicle, one of your recommendations, I take it, would be engineering improvement to better manage the kinetic energy in the vehicles we do have?

A. Yes.

Q. Accordingly, if doubles managed kinetic energy better than singles, it would be desirable to use doubles, assuming the same weights?

A. If there were something inherent about a double trailer that made it manage energy better than the single trailer, that would be correct, but I know of no

[59]

such attribute.

* * *

Q. ...Dr. Robertson, you indicated to me that you do not have an opinion as to whether twin trailers, or doubles, are safer than semitrailers?

A. In the absence of data to distinguish between the two I have no opinion, no.

* * *

[Jurat]

AFFIDAVIT OF MYRON E. BOTHUN

Filed October 10, 1975

[Caption Omitted in Printing]

* * *

STATE OF NORTH DAKOTA)

) SS.

COUNTY OF BURLEIGH)

MYRON E. BOTHUN, being first duly sworn on oath, according to law, deposes and says:

1. He is the General Counsel for the North Dakota Highway Department and his business address is Capitol Grounds, Bismarck, North Dakota 58505.
2. The State of North Dakota has for many years allowed sixty-five foot double bottom vehicles on its state highways, both two and four lane.
3. From the materials gathered by this agency, there is no indication that sixty-five foot double bottom vehicles have been involved in accidents where their length or configuration has been detected as a contributing factor.
4. The Truck Regulatory Division of the North Dakota Highway Department reports that these trucks have caused no problem on North Dakota highways.
5. The sixty-five foot double bottom truck is in everyday use on North Dakota highways and is an integral part of the overall North Dakota transportation system.

/s/ Myron E. Bothun
MYRON E. BOTHUM

[Jurat]

AFFIDAVIT OF DENNIS EISNACH

Filed October 20, 1975

[Caption Omitted in Printing]

STATE OF SOUTH DAKOTA)
) SS.
COUNTY OF HUGHES)

DENNIS EISNACH, being first duly sworn according to law, deposes and says:

1. He is the Superintendent of the Highway Patrol Division, Department of Public Safety, for the State of South Dakota, Public Safety Building, Pierre, South Dakota 57701.
2. The accident experience with 65-foot double bottom trucks on South Dakota highways indicates that these units have not caused any safety hazard.

3. A summary review of our accident record shows no difference in the over-all accident experience with 65-foot doubles as compared with 55-foot tractor semi trailer units.
4. The South Dakota Highway Patrol has not received any motorist complaints related to the twin trailer configuration of these trucks.

/s/ Dennis Eischach

[Jurat]

AFFIDAVIT OF JOE E. SOL

Filed October 10, 1975

[Caption Omitted in Printing]

State of Montana)

County of Lewis & Clark)
) SS.
)

JOE E. SOL, being first duly sworn on oath, deposes and says that:

He is the Chief of the Highway Patrol Bureau for the State of Montana and his business address is 1014 National Avenue, Helena, Montana.

The use of 65 foot double-bottoms by the trucking industry has not caused a problem in the State of Montana and accident experience attributed to this type of unit has not been cause for alarm in Montana since their inauguration in the 1950's.

Montana has not experienced hardship or adverse traffic conditions as a result of the operations of the above-described units on Montana highways.

/s/ Joe R. Sol
 COLONEL JOE R. SOL

[Jurat]

AFFIDAVIT OF COLONEL F.J. WICKAM

Filed October 20, 1975

[Caption Omitted in Printing]

STATE OF WYOMING)
) SS.
 COUNTY OF LARAMIE)

Colonel F.J. Wickam, being first duly sworn on oath, according to law, deposes and says:

1. He is the Director of the Wyoming Highway Patrol and his business address is P.O. Box 1708, Cheyenne, Wyoming 82201;

2. The State of Wyoming has allowed sixty five foot double bottom trucks to operate on Wyoming highways since 1961 and has recently raised the legal length limit for doubles to seventy five feet.

3. Wyoming has practically all types of terrain and highways, consisting of mountains, plains, four and two lane highways, as well as all types of weather, causing dry, wet and snowy roads.

[2]

4. The accident experience with sixty five foot double bottoms in Wyoming is such that we have never kept a separate tabulation of the accidents with these units.

5. It has been our experience as an enforcement agency that the twin trailer configuration, as well as the sixty five foot length, has not caused a traffic or accident frequency problem with our state.

6. The operation of twin trailers has not caused any serious traffic or accident problems.

7. The sixty five foot twin trailer is a commonly used and accepted part of the Wyoming highway transportation system.

/s/ Fred J. Wickam

Colonel F.J. Wickham

[Jurat]

AFFIDAVIT OF RAY LOWER

Filed October 10, 1975

[Caption Omitted in Printing]

STATE OF IDAHO)

)ss.

COUNTY OF ADA)

RAY LOWER, being first duly sworn according to law, deposes and says:

1. He is the Highway Transportation Officer for the Idaho Transportation Department, P.O. Box 7129, Boise, Idaho 83707.
2. The State of Idaho has permitted truck combinations known as 65-foot twin trailers on its highways for approximately 20 years.
3. Effective on July 1, 1974, the maximum length for twin trailers was increased from 65 feet to 75 feet.
4. Although accident statistics in the State of Idaho do not segregate twin trailers from single truck semi-trailers, in the past a manual review of accident reports

was made and revealed that 65-foot twin trailers have a slightly better safety record than single semi trailers.

5. The better safety record of 65-foot twin trailers was attributed to both better equipment and more experienced drivers. The 65-foot twin trailers are typically operated by general commodity carriers who employ more professional drivers, and the double bottom truck itself exhibits better off-tracking than does the semi-trailer unit.

/s/ Ray L. Lower

[Jurat]

* * *

* * * * *

AFFIDAVIT OF CAPTAIN R.E. SHERMAN

Filed October 20, 1975

[Caption Omitted in Printing]

* * *

STATE OF WASHINGTON)

) SS.

COUNTY OF THURSTON)

CAPTAIN R.E. SHERMAN, being first duly sworn on oath, according to law, deposes and says:

1. He is the weight control officer for the Washington State Patrol and his business address is 4242 Martin Way, Olympia, Washington 98504.
2. The State of Washington first allowed 65-foot Twin Trailers in 1955 on a restricted route basis by designating those highways allowed. The designated highway restriction was subsequently amended to allow the operation of doubles on all state highways.
3. The 65-foot Twin Trailer combination is defined under RCW 42.44.037 as a truck tractor, semi-trailer, and a full trailer. The full trailer is the configuration of a dolly or converter gear and a semi-trailer. The allowable length is 65 feet over-all with a height not to exceed 13'6".

4. The Washington State Patrol does not segregate the accident records of Twins from other heavy trucks. Our accident experience with Twin Trailers has been good and therefore no special statistical category has ever been maintained on them.
5. The operation [sic] of Twin Trailers is now an accepted part of the total transportation industry in our state.

/s/ Captain R.E. Sherman

Captain R.E. Sherman

[Jurat]

* * *

AFFIDAVIT OF ROBERT HAMILTON

Filed October 10, 1975

[Caption Omitted in Printing]

* * *

STATE OF OREGON)
) SS.
COUNTY OF MARION)

ROBERT HAMILTON, being first duly sworn on oath, according to law, deposes and says:

1. He is the Permit Director for the Oregon State Highway Department and his business address is 2960 East State St., Salem, Oregon 97310.
2. Sixty-five foot double bottom trucks have been permitted on Oregon highways since 1951. They are currently allowed to traverse 97% of the State highway system, which includes two lane, as well as four lane highways. Sixty-five foot doubles are allowed on all Interstate roadways in Oregon.
3. The use of double bottom trucks has caused no safety problem in Oregon.
4. During his five years as Permit Director, no citizen complaints whatsoever concerning double bottom trucks have been brought to his attention or filed with this office.
5. The double bottom truck is an integral part of truck transportation in Oregon.

/s/ Robert Hamilton

ROBERT HAMILTON

[Jurat]

AFFIDAVIT OF JOHN C. AMTHOR

Filed October 20, 1975

[Caption Omitted in Printing]

STATE OF MICHIGAN)

)ss.

COUNTY OF INGHAM)

JOHN C. AMTHOR, being first duly sworn according to law, deposes and says:

1. He is the commanding officer of the Michigan Safety and Traffic Division of the Michigan Department of State Police, 714 South Harrison Road, East Lansing, Michigan 48823.

2. His duties include responding to requests for accident record information to be

taken from the Michigan Central Accident Records' files.

3. Since 1970, *65-foot twin trailer combinations have been allowed on Michigan Highways, on a designated system consisting primarily of freeways and some two-lane roads to provide [sic] continuity. The 65-foot twin trailer units are not required to have special [sic] permits.

4. The State accident records files do not indicate a safety problem in Michigan with the 65-foot twin trailers.

/s/ John C. Amthor

John C. Amthor

[Jurat]

*65 Foot twin trailer combinations include the tractor

AFFIDAVIT OF ROBERT W. PATTON

Filed October 10, 1975
[Caption Omitted in Printing]

* * *

STATE OF COLORADO)
) SS.
COUNTY OF DENVER)

ROBERT W. PATTON, being first duly sworn
according to law, deposes and says:

1. He is the Staff Maintenance Superintendent of the Colorado Department of Highways, 4201 East Arkansas Avenue, Denver, Colorado 80222, and has held this position since 1971. Prior to that time, he had been District Maintenance Superintendent since 1959.

2. His duties include monitoring all truck operations in Colorado with respect to safety to the motoring public, and issuance of oversize vehicle permits. Prior to 1965 when sixty-five foot twin-trailers were first authorized by statute, he had been involved in the issuance of permits for a limited number of sixty-five foot trailers for the purpose of testing such vehicles, as is more fully described hereafter.

3. From 1965 to 1973, the first Colorado statute authorizing sixty-five foot twin-trailers permitted [sic] sixty-five foot twin-trailer operations only on roads designated by the Colorado Highway Commission.

4. Since 1973, sixty-five foot twin-trailers have been permitted on all State highways in Colorado including mountain highways and passes, and two-lane highways, by virtue of C.R.S. 42-4-403.

5. Prior to the 1965 statute, he had been involved in a special test under a limited number of sixty-five foot twin-trailer permits granted to Ringsby Freight Lines, Inc. for the purpose of testing twin-trailer safety. The test proved sixty-five foot twin-trailers to be safe vehicles, and as a result thereof, the Department of Highways recommended to the Colorado Legislature that the 1965 statute authorizing sixty-five foot twin-trailers, be passed.

6. Since 1965, sixty-five foot twin-trailers have become a way of life on Colorado highways and an integral part of the Colorado transportation system. No difference in terms of safety have been experienced between sixty-five foot twin-trailers and fifty-five foot semi-trailers.

/s/ Robert W. Patton
ROBERT W. PATTON

[Jurat]

AFFIDAVIT OF EARL W. HENNEMAN

Filed October 20, 1975

[Caption Omitted in Printing]

STATE OF WISCONSIN)
) SS.
COUNTY OF EAU CLAIRE)

EARL W. HENNEMAN, first being duly sworn on oath, according to law, deposes and says:

1. He is the director of operations and maintenance for Chippewa Motor Freight, Inc. ("Chippewa"). His business address is Post Office Box 269, Eau Claire, Wisconsin, 54701. Chippewa is a common motor carrier of general commodities, serving both Wisconsin and non-Wisconsin points in interstate commerce.

2. For approximately seven years, Chippewa has operated a motor vehicle combination consisting of a straight truck, dolly, and twenty-seven foot trailer, for an overall length of fifty-five feet ("Chippewa Doubles").

3. He has personally worked with this vehicle combination on a daily basis and aided in its original design.

4. The connecting device between the straight truck and trailing equipment is identical to that commonly used on sixty-five foot Twin Trailer [2]

combinations ("Twin Trailers") between the first and second trailers, i.e., a pintle hook between the straight truck and dolly, and a fifth wheel between the dolly and the twenty-seven foot trailer.

5. Chippewa has had six of these combinations in use on a daily basis, transporting general commodities.

6. Wisconsin law allows this vehicle combination on all roads on which fifty-five foot tractor semi-trailer combinations are allowed.

7. Chippewa has experienced no incidence of failure of the connecting device used on Chippewa Doubles combinations.

8. The Chippewa Doubles combinations have been used as a "stop-gap measure" to provide Chippewa with some means of interchanging equipment with the transcontinental carriers who predominantly use Twin Trailer combinations.

9. The Chippewa Doubles have neither the cubic capacity nor the flexibility of Twin Trailer combinations. These considerations and lack of complete compatibility with Twin Trailer operations of connecting carriers have result in the decision by Chippewa management to discontinue use of Chippewa Doubles. The component parts of the Chippewa Doubles are being dismantled for other use as of this date.

/s/ Earl W. Henneman

Earl W. Henneman

[Jurat]

PLAINTIFFS' REQUEST FOR ADMISSIONS

Filed October 20, 1975
[Caption Omitted in Printing]

TO: Albert O. Harriman, Esq.
Assistant Attorney General
State of Wisconsin
121 W. Washington Avenue
Madison, Wisconsin 53703
Attorney for Defendant

PURSUANT TO RULE 36, Federal Rules of Civil Procedure, you are hereby respectfully requested to admit the truth of matters set forth below:

1. Defendants Rice, Huber, Sweda, Young, Volk, or their designated representatives, through the Department of Transportation of the State of Wisconsin ("WDOT"), are authorized by statute and do issue permits for over-length vehicle operations on Wisconsin highways, to-wit:

Mobile Home Annual Permits issued under § HY 30.16, Wis. Adm. Code;

Vehicle Transportation Annual
Permits issued under § HY 30.12,
Wis. Adm. Code;

General Annual Permits issued
under § HY 30.06, Wis. Adm. Code;
and

Single Trip General Permits issued
under § HY 30.03, Wis. Adm. Code.

Defendants or their designated represen-
tatives retain files of such permits,
which files are in the custody of WDOT,
and as of July 1, 1975, included files for
the years 1973, 1974, and 1975.

[2]

2. Commencing on the 16th day of June,
1975, and concluding on or about the 1st
day of September, 1975, Plaintiffs
reviewed such files at offices of WDOT in
Madison, Wisconsin.

[3]

* * *

[T]he data was divided into three
categories according to maximum vehicle
length permissible under the permit, to-
wit: sixty-five feet; over sixty feet but

less than sixty-five feet; and over fifty-
five feet but less than sixty feet.

The tabulated data appears in
Exhibit PA-2, attached hereto and
incorporated herein by reference.

5. Plaintiffs reviewed WDOT files containing
Annual General Permits commencing at
the front of Drawer One of such file and
examining each file thereafter, in order,
as filed. The following information with
respect to each permit was recorded on
printed forms: the maximum permissible
vehicle length authorized; and the effec-
tive and expiration dates of the permit.
The recorded data was divided according
to year, for the years 1973, 1974, and
1975. The recorded data included only
those permits which were effective on
June 1, of the respective year. For each
year the data was divided into five
categories according to the maximum
vehicle length permissible under the
permit, to-wit: eighty-five feet, over
seventy-five feet but less than eighty-
five feet; seventy-five feet; sixty-five
feet but less than seventy-five feet; and
over fifty-five feet but less than sixty-
five feet.

The tabulated data appears in Exhibit PA-3, attached hereto and incorporated herein by reference.

6. Plaintiffs reviewed WDOT files containing single trip General Permits commencing with the first permit issued in each year and continuing thereafter, through each file, to the end. The recorded data included permits issued in the [sic] years 1973, 1974, and 1975. For each year, the data was divided into two categories according to the maximum vehicle length permissible under the permit, to-wit: sixty-five feet and over; and over fifty-five feet but less than sixty-five feet.

The tabulated data appears in Exhibit PA-4 attached hereto and incorporated herein by reference.

* * *

[4]

7. The information appearing on Exhibits PA-1, PA-2, PA-3, and PA-4, reflects the information therein purported to be contained is true and correct to a reasonable degree of certainty.

Dated at Madison, Wisconsin, this 20th day of October, 1975.

DeWitt, McAndrews & Porter, S.C.

By: /s/ John Duncan Varda
 John Duncan Varda
 Attorneys for Plaintiff

[Exhibit PA-1]

MOBILE HOME ANNUAL PERMITS

Issued by the Wisconsin Department of Transportation

§HY 30.16, Wisconsin Administrative Code

Length in Feet	Permits in effect in June 1,				178
	1973	1974	1975	3 Year	
85	1,139	1,723	1,672	4,534	
Over 75, under 85	741	222	189	1,152	
75	82	60	48	190	
Over 65, under 75	6	7	3	16	
Over 55, under 65	<u>1</u>	<u>0</u>	<u>3</u>	<u>4</u>	
	1,969	2,012	1,915	5,896	

[Exhibit PA-2]

VEHICLE TRANSPORTATION ANNUAL PERMITS

Issued by the Wisconsin Department of Transportation

§HY 30.12, Wisconsin Administrative Code

Length in Feet	Permits effective on June 1,				179
	1973	1974	1975	3 Year	
65	3,000	2,633	2,799	8,432	
Over 60, under 65	405	374	256	1,035	
Over 55, under 60	<u>37</u>	<u>36</u>	<u>22</u>	<u>95</u>	
	3,442	3,043	3,077	9,562	

[Exhibit PA-3]

GENERAL ANNUAL PERMITS

Issued by the Wisconsin Department of Transportation

§HY 30.06, Wisconsin Administrative Code

<u>Length in Feet</u>	Permits effective on June 1,				180
	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>3 Year</u>	
85	173	198	212	583	
Over 75, under 85	2	0	0	2	
75	6,437	9,106	10,266	25,089	
Over 65, under 75	752	761	688	2,201	
Over 55, under 65	<u>608</u>	<u>715</u>	<u>1,102</u>	<u>2,425</u>	
	7,972	10,780	12,268	31,020	

[Exhibit PA-4]

SINGLE TRIP GENERAL PERMITS

Issued by Wisconsin Department of Transportation

§HY 30.06, Wisconsin Administrative Code

<u>Length in Feet</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>31 Month Total*</u>	181
	6,510	6,212	4,040	16,762	
65 and over	2,387	<u>2,620</u>	<u>1,778</u>	<u>6,785</u>	
Over 55, and under 65	8,897	8,832	5,818	23,547	

(*First seven months of 1975 only)

**DEFENDANTS' RESPONSE TO
PLAINTIFFS' REQUEST FOR ADMISSIONS**

Filed November 10, 1975
[Caption Omitted in Printing]

* * *

COME NOW the Defendants named herein by Albert O. Harriman, their attorney, and hereby respond to Plaintiffs' Request for Admissions, made pursuant to Rule 36, Federal Rules of Civil Procedure, and dated herein October 20, 1975, as follows.

Defendants admit the truth of the matters contained in Paragraphs 1 through 7 of the said Plaintiffs' Request for Admissions.

/s/ Albert O. Harriman
Albert O. Harriman
Attorney for Defendant

AFFIDAVIT OF PETER GOVE

Filed November 10, 1975
[Caption Omitted in Printing]

* * *

[illegible]

PETER GOVE, being first duly sworn,
deposes and says:

1. That he is Executive Director of the Minnesota Pollution Control Agency.
2. That the Minnesota Pollution Control Agency has reviewed the environmental aspects of operating twin trailers on designated highways throughout the State of Minnesota.
3. That the Minnesota Pollution Control Agency supports the use of twin trailer combinations for the following reasons:
 - (a) The use of twin trailer combinations rather than 40-foot semi-trailers reduces the number of power units on the highways.

- (b) The reduction of the number of power units on the highways brings about fuel savings which is extremely important in this time of the oil crisis.
- (c) The use of twin trailer combinations rather than 40-foot semi-trailers also results in fewer harmful air pollutants being emitted along the highways into the air.
- (d) The use of twin trailer combinations rather than 40-foot semi-trailers reduces noise pollution, inasmuch as by using twin trailer combinations it is possible to have fewer power units on the road.

FURTHER AFFIANT SAITH NOT.

/s/ Peter Gove

PETER GOVE

[Jurat]

DEPOSITION OF WAYNE VOLK

Filed September 18, 1975

[Caption Omitted in Printing]

DIRECT EXAMINATION

By Mr. Varda:

[2]

Q. And by whom are you employed?

A. The Department of Transportation, Division of Highways.

Q. And what is your title?

A. Chief Traffic Engineer.

[3]

Q. What is your business address?

A. 4802 Sheboygan Avenue, Madison.

Q. How long have you been employed by the Department of Transportation?

A. I have been employed by the State of Wisconsin Highway Commission since 1934.

Q. Can you give us a brief history of the positions you have held?

A. Well, I was the Assistant to the Traffic Engineer until 1942, and since that time I have been Chief Traffic Engineer.

Q. All right. What are the responsibilities of the Chief Traffic Engineer?

A. Administration of the traffic sections which are responsible for the design, manufacture, installation, and use of traffic control devices, traffic regulations, accident statistic use, and the issuance of permits for road and vehicles which exceed statutory size and weight limits.

Q. In the latter function are you responsible for the administration of Section 348.25 through 348.27 of the Statutes?

A. Yes.

Q. And are you responsible for the administration of Chapter HY 30 of the Wisconsin Administrative Code?

A. Yes.

Q. And as Chief Traffic Engineer are you the person to whom

[4]

applications for trailer train permits under HY 31.4 of the Code are properly directed?

A. Yes.

* * *

[5]

Q. Now, I am going to show you a portion of the 1975 Statutes. Do you have a copy in front of you? Let's refer to Section -- '73 Statutes. 348.25. Are you familiar with this statutory scheme as set out under the heading Permits?

A. Yes.

Q. Do you work with this section of the Statutes on a day-to-day basis?

A. Yes.

* * *

[6]

Q. Now, under Section 348.25(7) there is a provision for revocation of a permit for good cause plus a provision for giving the permittee a reasonable opportunity for hearing. During your experience have permits been revoked?

A. Yes.

[7]

Q. Have any such hearings as authorized by this Section been held?

- A. Yes.
- Q. Can you characterize the type of causes which the Department would determine appropriate for revocation of a permit?
- A. The substantial violation of the permit such as excessively heavy overload, or operation on a highway over which operation was not permitted, and for other reasons, too.
- Q. Before whom would the hearing be held on revocation?
- A. One or more commissioners.
- Q. And who would bring proceedings to revoke a permit?
- A. It would ordinarily be the Chief Traffic Engineer.
- Q. May a permit be revoked without good cause or some cause?
- A. I would say no.
- Q. The criteria for avoidance of revocation or suspension would be adherence to the conditions set forth in the permit as issued to the permittee?
- A. Yes.
- Q. Mr. Volk, would you agree that in each of the subsections in 348.26 and 348.27 relating to subheading items such as annual permit, industrial interplant permit, trailer train

permits, the Highway Commission is authorized and, "may issue" the permits set forth in those sections, and I underscore the word may issue to indicate this is not a

[8]

mandatory type of provision?

- A. Yes, that word is used in each of those subsections.
- Q. And is it your understanding that these issuances of permits thereunder is not mandatory?
- A. That is my understanding.

* * *

[10]

- Q. These general conditions are set forth in HY 30.1(3)(e) and numbered paragraphs thereunder in the issuance of various, the various permits, are you, from time-to-time, are you empowered to waive, alter, or change any of those conditions

* * *

[11]

- Q. You make reference in this third paragraph [of Exhibit 1] to a concentration of mobile homes and modular building fabrication in the

Marshfield-Stratford-Spencer area. In your capacity as Chief Traffic Engineer would you make an investigation of location of manufacturing and industrial facilities within the State?

A. We would only do that in connection with particular concerns

[12]

or problems which had arisen relating to the issuance of permits.

* * *

[13]

Q. Now, Mr. Volk, I refer to what has been identified as Plaintiff's Exhibit No. 2, which is a set of documents commencing with the letter dated June 19th, 1972, addressed to a Mr. H. E. Halverson, H-a-l-v-e-r-s-o-n, and ask you if

[14]

you recognize that letter and the attached documents as documents from your files?

A. Yes, I do.

Q. And now in reference to the letter of June 19th, would you characterize this as a referral of a complaint about particular mobile home operations to a representative of the mobile home manufacturing industry?

A. Yes, I do.

* * *

[22]

Q. Would you say that the most pertinent factor in your consideration of issuance of mobile home permits is the width of the mobile home, the point that it becomes wider than normal highway traffic?

A. That is certainly the primary consideration, although the Commission has set a limitation on the length for which permits will be issued.

Q. What is that limitation?

A. It is now eighty-five feet.

* * *

[24]

Q. Now, I'd like to direct your attention to Exhibit 7. This memorandum was prepared by you, is that correct?

A. Yes.

* * *

Q. On the third full paragraph of your memorandum in Exhibit 7 you make reference to transportation of Minnesota and Iowa origin

and destination mobile homes on Wisconsin roads, and certain types of practices that might be directed at alleviating the problem which is the subject of the memorandum. Can you describe the type of program you evaluated in that paragraph?

- A. The movements of the mobile homes in question were from points in Minnesota, then into Wisconsin, and either northerly or southerly along highways close to the Minnesota-Wisconsin border, then back again into Minnesota or Iowa so that they were using Wisconsin highways whereas the origin and destination of movement was almost always in the adjoining state or states.

[25]

- Q. Your concern was to get the Minnesota and Iowa origin and destination home on Minnesota and Iowa roads, is that correct?

A. Yes, whenever practicable.

- Q. And you apparently determined to, or commenced an action administratively of declining to issue permits for such movements, is that correct?

A. Yes.

- Q. You subsequently determined to hold the moratorium on declining to issue those permits

until action was taken by the respective states of Minnesota and Iowa which would authorize transportation of these homes on their state highways?

A. Yes.

- Q. What type of concern led you to hold off the pressure, if we can call it pressure, rather than increase the pressure to obtain movement of these vehicles on roads in the respective states?

A. Well, as indicated in the memorandum, Minnesota was considering the possibility of refusing single trip permits for the movement of mobile homes from Wisconsin points into or through the State of Minnesota if we discriminated against movement of mobile homes through Wisconsin when the origin and destination was in Minnesota.

- Q. Now, would this have adversely affected Wisconsin manufacturers of mobile homes?

[26]

A. Yes, it would.

- Q. You were in a position, as you indicated in the memorandum, to escalate the discriminatory practice by refusing to issue permits to Minnesota based transporters of units into Wisconsin. Was your determination to avoid

that escalation a matter of avoiding the adverse impact on the industries involved?

- A. Well, our determination to not refuse permits to Minnesota transporters, including the decision to allow movements in Wisconsin parallel to the border where the origin and destination were not necessarily in Wisconsin largely because it was decided that Minnesota didn't recognize, hadn't recognized, before the meeting that Mr. Weaver attended that the extent of the problem, as we viewed them in Wisconsin, and it was our conclusion that we would attempt to rectify the situation as far as these movements in Wisconsin were concerned. We were also, of course, concerned about the effect of escalating the administrative procedure.

* * *

[31]

- Q. Let's refer to Exhibit 9. If you will acquaint yourself with the first paragraph of that Exhibit, will you agree that you recognize that application by Schlitz was for the purpose of performing certain transportation more economically?

- A. Yes, it was.
- Q. The commodity to be transported by Schlitz was empty beer cans, is that correct?
- A. Yes.
- Q. Would you have regard -- Strike that. Would you regard a load of empty beer cans of itself as a load which might be divided?
- A. Yes.
- Q. Among the reasons you use for your recommendation of grant of this permit on Page 2 of Exhibit 9 is the issuance of permit for the same length of vehicle, sixty-five feet, to the American Motors Corporation, is that correct?
- A. Yes, it is.
- Q. Are you familiar with the permit issued to the American Motors Corporation?
- A. Yes.
- Q. And do these permits authorize movement basically from the City between the City of Kenosha and the City of Milwaukee?
- A. Yes. The movement is in both directions, loaded generally. It's from Milwaukee to Kenosha.

[32]

- Q. And this is a distance of approximately how many miles?

- A. About forty-five miles.
- Q. Would that be traveled over the Interstate Highway system at any point?
- A. Partially, yes.
- Q. Is the Interstate Highway 94 in the corridor between the Illinois State line and Milwaukee regarded as a heavily traveled route?
- A. Yes, it is.
- Q. How long, if you can tell me from memory, have the permits been issued to the American Motors Corporation for vehicles sixty-five feet in length?
- A. I would say more than twenty years.
- Q. Are those issued under annual permits?
- A. They are issued as an industrial interplant permit.
- Q. Okay. I didn't mean to use the specific term annual permit, but the industrial interplant permit which are issued to American Motors are annual permits?
- A. Yes, they are.
- Q. You keep no records of the number of trips which may be operated under those permits?
- A. No, we keep no such records.
- Q. And one permit is issued for each vehicle combination?

- A. It's a single permit on which the vehicle combinations, or
- [33]
- I should say rather the vehicles used in the transportation are listed by identification number.
- Q. There is a specific reason you make reference to for issuance of permits to Schlitz. This is again on Page 2 of Exhibit 9. Is that the Schlitz trailers are light weight and will be able to maintain the same speeds as other traffic on the expressway.
- A. Yes.
- Q. You have made no -- Strike that. At some point, Mr. Volk, you made a determination that transportation movement of sixty-five foot semi-trailer units by Schlitz and American Motors should not be prohibited merely because of the length of the vehicles?
- A. The determination with regard to the American Motors vehicle was really made by the Legislature many years ago, and the determination with regard to the Schlitz vehicle likewise was really made by the Legislature in that Section 348.27(4) authorized the issuance of permits for oversized vehicles.

Q. Now, the last page of Exhibit 9 appears to be a memorandum addressed by you to Representative Joseph Czerwinski. Do you know Mr. Czerwinski to be a representative of the Wisconsin State Legislature?

A. He was at the time the memorandum was addressed to him, yes.

Q. The memorandum makes reference to its being a response to

[34]

a request from Mr. Czerwinski's office. We couldn't find any copy of a written request. Can you recall whether that would have been an oral request?

A. I believe that it was.

Q. Is this type of contact to your office made by a Legislative Representative something which occurs from time-to-time?

A. Yes, it does.

Q. And you have listed here copies of the correspondence which were forwarded to Mr. Czerwinski. Did that include all of the correspondence and memoranda in the file on this subject, if you can recall?

A. I can't recall specifically. I would have to search the files. It covered all of the pertinent correspondence, to the best of my recollection.

Q. Was there any further contact with Mr. Czerwinski's office on the subject?

A. Not to the best of my knowledge.

Q. At the time of the inquiry, the permit sought by Schlitz had not been issued, is that correct?

A. That is correct.

Q. Now, let us refer, so the record stands clear, you did make your recommendation in favor of issuance of the permit to Schlitz prior to the contact from Mr. Czerwinski's office?

A. Yes, I did.

* * *

[36]

Q. Mr. Volk, you have before you what have been marked as Plaintiff's Exhibits 12 through 5. Do you recognize those documents as from your files?

A. Yes.

Q. Do these documents relate to the issuance of a certain or certain interplant permits to the A.O. Smith Corporation of Milwaukee?

A. Yes.

Q. These permits were for movement of certain vehicles which would be through a length of sixty feet and a width of eleven feet, is that correct?

- A. That is correct.
- Q. What would be transported on the vehicles?
- A. Automobile frames.
- Q. And would the load of itself which would be transported by this company under the permit be considered divisible?
- A. The load itself would be divisible, would consist of a number of articles.
- Q. These articles could be transported within the statutory width and length requirements, is that correct?
- A. Yes, I believe they could be.
- Q. The reason for their transportation on oversized and -- Check that -- overlength and overwidth units for the purpose of the economy of the transportation?

[37]

- A. Economy and also, if I recall correctly, to facilitate their handling in the industrial operation conducted in their manufacture.
- Q. Would that be to facilitate loading and unloading?
- A. Yes.

* * *

[39]

- Q. Please refer to Exhibit 18, and can you identify the document contained therein as from your files?
- A. Yes, they are.
- Q. Is this again an application for an overlength permit under 348.27(5)?
- A. Yes, it is.
- Q. And was it your recommendation that the statutory authorization did not authorize issuance of a vehicle transportation annual permit for transportation of used, damaged, or repossessed motor vehicles?
- A. Yes. We concluded that the Statutes did not authorize the issuance of permits for that purpose.
- Q. Is that your present interpretation?
- A. Our present interpretation is that if a vehicle is capable of being operated, and if it is capable, and the intention

[40]

is to repair it and place it back into normal operation, that it comes under the definition of terms of a motor vehicle. However, if it is in such condition that it will not ever be useable as a motor vehicle, then it is not a motor vehicle.

- Q. So under your present interpretation would you issue their permit which is the subject of the material in this Exhibit?
- A. We would issue a permit with the stipulation that it might be used only for the transportation of vehicles as I indicated in my previous answer.
- Q. Was your interpretation of 348.27(5) changed as a result of the application reflected in Exhibit 18?
- A. I don't recall that. I would have to examine our files to make sure.
- Q. Up to that time had this Section been interpreted to apply only to new car sales?
- A. I believe not exclusively to new car sales. It is possible that a few for vehicle transportation permits were issued for the transportation of useable used cars.
- Q. Was the applicant in Exhibit 18, with a Minneapolis, Minnesota address, was that an out-of-state applicant?
- A. Yes.

* * *

[42]

- Q. Now, under section 348.27(2) you would be in a position to authorize the transportation of a

pole length load which would result in an overlength vehicle to persons to whom you would not be authorized to issue a permit to for the same commodity under Section 348.27(5)?

- A. Yes.
- Q. To clarify that example, if I had a pole to transport which would result in overlength vehicles and I were not a pipeline company or a public service corporation, I would apply for a permit to transport that pole under 348.27(2)?
- A. Yes.
- Q. Now, going back to the permit application in Exhibit No. 19, is it not true that for transportation economy sought by the applicant here could be effected inasmuch as the pole could be cut and the cut length loaded in some fashion upon the same vehicle within the statutory length limit?
- A. Although I am not entirely familiar with the proposed operation, it is my understanding that this would have been

[43]

at least difficult because it would have necessitated producing a higher load, and it might not have been possible to transport the

same amount of pulp wood within the statutory height and length and width limitations.

* * *

Q. Referring to Exhibit 20, is this related to an application for an annual permit for industrial interplant operations under 348.27(4)?

A. Yes.

Q. And does the application for certain operations from Pulaski, Wisconsin to the state line with Minnesota, Illinois, and Michigan?

A. Yes.

Q. And are the vehicles of which the permit is sought for the length up to sixty feet and widths up to eleven feet ten inches?

[44]

A. Yes.

Q. Is there any limitation with respect to the number of trips which may be operated by the permitted vehicles?

A. No.

Q. And what is the load to be transported?

A. It is oversized boats.

Q. I didn't mean to cut you off.

A. I perhaps should say manufactured by the applicant.

Q. The applicant is a Wisconsin manufacturer of boats, is that correct?

A. Yes.

Q. The boats to be transported under this permit are loads in excess of the statutory limits of themselves are divisible for transportation within the statutory limits, is that correct?

A. I believe that the boats, at least some of them, may be larger than could be transported within the statutory size limits. As to whether all of the loads covered by this transportation consist of non-divisible or oversize articles, I do not recall, though it is possible it could be determined from other correspondence.

Q. This permit as issued would authorize transportation of loads in which no one article was over width or over length?

A. Yes, the permit would.

[45]

Q. Now, if you will refer to Plaintiff's Exhibit 21. Is that fairly characterized as an application by an Indiana company for transportation of boats which would result in an overlength operation on Wisconsin roads?

A. Yes.

Q. And are the loads or were the loads which this applicant sought to transport of themselves divisible for transportation within the statutory limits?

A. Yes.

Q. ...This application was not made under Section 348.27(4), is that correct?

A. It was not made under any specific section of the Statutes. The applicant merely stated the type of load and the dimensions which he wished to transport and asked if it would be possible to transport it.

Q. If this were an application, it could not be granted under the Section to which you made reference?

A. No, it could not.

Q. If Godfrey Conveyor Company, Inc., the applicant here, were located in Pulaski, Wisconsin, and seeking to transport the same load to the Wisconsin state line, or to points in Wisconsin, would a permit have been issued under 348.27(4)?

[46]

A. That would depend upon whether or not the Godfrey Conveyor Company was eligible. They would possibly be eligible if they were a

manufacturer and manufactured the boats, but there is no evidence in their letter of February 12th that they were manufacturers.

Q. A permit would also be issuable if the applicant were an agent motorcarrier, is that correct?

A. Did you ask the question?

Q. Let me restate it. If the applicant in the example we have referred to were a manufacturer or the agent motorcarrier of a manufacturer, permit would be issuable under 348.27(4)?

A. Yes, it would.

* * *

[47]

Q. Referring first to Exhibit 22, is this document your recommended approval of a trailer-train permit?

A. Yes.

Q. This permit is issued to a Badger Paper Mills, Inc.?

A. Yes.

Q. And to the best of your knowledge, would the permit have been issued from year-to-year beginning in 1968?

- A. Yes.
- Q. Does this permit authorize the movement of three vehicles in combination?
- A. Yes.

* * *

[48]

- Q. Referring to the Administrative Code provisions under HY 30.14, specifically (3) and (a), in what categories under (a) would the Badger Paper Mill trailer-train permit fall?
- A. It does not fall specifically under the category of municipal refuse or waste, of course, for the operation without loads of three vehicles in combination.
- Q. Would this be considered an exception or waiver to the Administrative Code provision as it appears in (3)(a)?
- A. Yes, it would.
- Q. To have a complete record, Mr. Volk, this transportation was of some type to have materials moved in a pollution abatement program by the private industry, is that correct?
- A. That is correct.

- Q. Now --
- A. I would like to amplify that slightly.
- Q. All right.
- A. Not that perhaps my answer to your previous question was not complete inasmuch as although this was from a private operation and transported in privately owned vehicles, it has the character of the same as any other municipal waste

[49]

which is generated by the private individual businesses, companies, and has to be transported to a place of disposal. So I suppose that it could very reasonably be construed as being within the term municipal refuse or waste.

* * *

- Q. Now, is the combination of vehicles under the Badger Paper Mills permit was capable of being separated, is that correct?
- A. Yes.
- Q. And it would have been possible to move each trailer unit separately from Badger Mills location to the dumping location?

A. Yes, it would.

Q. Do you accept and would you have recommended authorization of the Badger Paper Mills permit for this twin-trailer operation -- Excuse me--for this trailer-train operation with the understanding that the reason for the movement of three vehicles in combination was for operating economies?

[50]

A. I believe that that is the general purpose behind all of the operations under the 348.27(6).

* * *

Q. Looking first at Exhibit 26, the first paragraph of this letter makes reference to application for permits to transport three vehicles in combination (double-bottom) [by Stoughton Body, Inc.]. Would you understand the unit to be involved in that requested permit to be a sixty-five foot twin-trailer unit three vehicle combinations of the type for which permits were sought by Raymond Motor Transportation, Inc. and Consolidated Freightways, the Plaintiffs in this action?

A. Yes, for that type of vehicle unit. However, these would be empty.

Q. Right. So as far as the equipment itself was concerned, the equipment would be identical or the same type of equipment?

A. That's my understanding, yes.

* * *

[53]

A. ...[T]hey [Stoughton Body, Inc., Stoughton, Wisconsin] just manufacture trailers.

Q. The combination of three vehicle combination was authorized under this permit could have been, was capable of, being separated, is that correct?

A. So far as I'm aware, yes.

Q. ...Each trailer unit could have physically been pulled separately to the state line either utilizing two power units or utilizing a shuttle power unit to effect the movement from Stoughton to the state line?

A. Yes.

Q. The reason for moving the two trailer body combination as a three vehicle combination was for economic reasons?

- A. Yes, it was.
- Q. So far as this annual permit was concerned there would have been no restrictions on the number of trips under the permit?
- A. No, there wouldn't.
- Q. A portion of this movement appears to be authorized over U.S. Highway 51, is that a two-lane highway?
- A. Yes, it is in the area.
- [54]
- Q. As you read the permit, could the vehicles have been moved via U.S. Highway 51 from Stoughton to the Illinois line?
- A. I believe that the wording of the approval of the permit is such that as to indicate that the intended route was via Highway 51 from Stoughton to Interstate Highway 90, then Interstate 90 to Illinois.

* * *

[55]

- Q. Now, if I had a two vehicle combination which involved a straight truck and a twenty-seven foot trailer dolly attached to the straight truck in the matter described in Raymond's twin-trailer application, provided the two vehicle straight truck trailer combination was

within the fifty-five foot limit, would that means of attachment of the trailer to the straight truck be lawful in Wisconsin?

- A. It is my understanding that it would be lawful, yes.

* * *

[56]

- Q. Now, Mr. Volk, do you recall receiving copies of the correspondence over the signature of Mr. Huber in July of 1972 regarding the denial of request for series of, by a series of, motorcarriers for issuance of twin-trailer permits?

- A. I recall receiving copies of a number of letters which

[57]

Mr. Huber sent of the type which you described. As to the exact year, I'm not certain.

- Q. Just to refresh your recollection I show you several documents for the purpose of refreshing your recollection as to the question I have just asked.

- A. Yes, these are copies of letters, copies of which I have received.

- Q. Now, sir, did you participate in the preparation of those letters?
- A. No, I do not believe I participated directly in the preparation of those actual letters.
- Q. Were you requested to make a recommendation with regard to the issuance of those letters?
- A. There were certainly safety discussions of the matter. I don't remember specifically having been asked to make a formal recommendation.
- Q. Now, in most of the permit applications that we have looked at today and produced examples of as Exhibits in this proceeding, the permit was accompanied in the files by a memorandum of recommendation from you as the Chief Traffic Engineer.
- A. Yes.
- Q. And we found no such record with respect to the permit sought and denied in the letters issued by Mr. Huber in
- [58]
1972. Would that tend to confirm that you did not make any formal recommendation of denial or approval as may be your practice in other permit applications?
- A. Yes, it would certainly tend to confirm that.
- Q. If a safety investigation were conducted to determine whether or not the permit applica-

tion we have just discussed should be granted or denied, would that have been within your administrative province?

A. Yes, it would.

* * *

CROSS EXAMINATION

By Mr. Harriman:

* * *

[62]

- Q. Why do we in the State of Wisconsin issue permits for moving mobile homes on our highways?
- A. Principally because it is a unit load which cannot be divided, and it has been deemed in the public interest to permit its movement to provide a form of housing which is needed.

* * *

FURTHER EXAMINATION

By Mr. Varda:

* * *

[69]

- Q. Now, have you had any investigation made of the feasibility relative to the manufacturing

practices of these companies to determine whether the sections of the modular homes could be constructed in such a way as to be transported within statutory size and weight tolerances?

A. Yes, some consideration has been given to that possibility.

Q. And what determination was made?

A. Well, that it is and would not be practicable to construct

[70]

them in eight foot widths for a number of reasons, but principally a matter of economics of the construction and the transportation.

* * *

Q. ...In the transportation of mobile homes, did the manufacturer of, for example, the fourteen foot wide mobile homes precede the availability of permits to transport those

[71]

homes over Wisconsin roads, or did the manufacturers manufacture commence after the availability of such permits to transport those homes over Wisconsin roads?

A. Well, the manufacture of fourteen foot wide mobile homes did begin in other states before we would issue permits for them as mobile homes to be transported in Wisconsin. I believe that there is a possibility that some Wisconsin manufacturers started some experimentation with them in their Wisconsin factories, but my recollection is that quite a few years ago we and the Commission were directly involved with the industry and with individual manufacturers on this question. They were concerned as to whether they should enter into this competitive business, and consequently inquired as to whether or not permits would be issued by the Commission.

* * *

[Jurat]

VOLK DEPOSITION, Exhibit 1

AD-75

File
DEPARTMENTAL CORRESPONDENCE
Division of Highways
File Copy No. 1195-1
Pl 1

Date: June 6, 1972
To: Robert T. Huber
From: Wayne N. Volk
Chief Traffic Engineer
Subject: Re: Permits for 14 Wide Mobile
Homes on the Interstate
Highway System

The following supplements my memorandum of May 8th to Mr. Hicks on the above subject.

Manufacture of mobile homes and modular building sections wider than 12 feet began about six years ago but did not represent a substantial proportion of total construction of these units for about two years. At the present time about 80 to 90% of the mobile homes and modular building sections being constructed in Wisconsin are 14 feet in width.

There is a concentration of mobile homes and modular building fabrication in the Marshfield-

Stratford-Spencer area. I understand that up to 40% of their production goes to the Minnesota market. Most of these units enter Minnesota at Hudson because Minnesota allows them to use U.S. Highway 12 from the Wisconsin line to the Twin Cities and the Interstate highways elsewhere in the state. The Prescott Bridge (U.S.H. 10) is not wide enough to accommodate these mobile homes, so that U.S. Highway 10 from the Marshfield area westerly is not presently much used for their movement.

The movements from the Marshfield area have largely been northerly to S.T.H. 29, thence westerly to Chippewa Falls and to U.S. 12 at Elkmound. Then the mobile homes were required to take U.S.H. 12 westerly through Menomonie to Hudson. While S.T.H. 29 from Withee westerly to Chippewa Falls was recently constructed and of adequate width to carry these wide loads without too much difficulty, State Trunk Highway 29 from Chippewa Falls westerly to Elkmound is only 20 feet in width. U.S. Highway 12 westerly from Elkmound to Hudson is likewise narrow according to modern standards and west of Menomonie goes through hilly country resulting in many curves, hills and relatively narrow bridges.

The older portions of S.T.H. 29 and U.S.H. 12 have suffered substantial shoulder damage due to the fact that these wide loads often encroach upon the shoulder to let other traffic pass. We have had numerous complaints from motorists whose windshields were cracked or broken by stones thrown up from shoulders by mobile homes. Complaints of this nature, of course, have come from other parts of the state as well.

We also received complaints from citizens, from the County Accident Review Committees, from sheriffs, and from the municipalities of Hudson and Menomonie about the hazards and inconvenience to normal traffic resulting from the movement of these 14-foot wide mobile homes over S.T.H. 29 west of Chippewa Falls and U.S. Highway 12 from Elkmound to Hudson.

About two years ago we found it necessary to allow these wide loads to enter I-94 just east of Hudson where U.S.H. 12 becomes coincident with I.H. 94 because it was very hazardous to take these units through Hudson. Shortly thereafter we began requiring that these mobile homes be escorted through Menomonie because of the hazards and congestion which they were causing there.

Fortunately there have been relatively few accidents involving mobile homes, although a few of them have been sideswiped by other vehicles. There have been only two or three fatal accidents directly attributable to these wide mobile homes. Last summer two 14-foot wide mobile homes going in opposite directions on U.S. Highway 12 in St. Croix County sideswiped. A number of mobile home manufacturers in Minnesota are moving their 14 wides into Wisconsin at Hudson.

The decision to recommend to the Commission that there be a three month trial of the movement of these units on I.H. 94 between Osseo and Hudson was based upon the feeling that while there are some hazards involved in moving such a wide (and sometimes slow moving) load on a high speed, busy freeway, these hazards might be less than moving these same loads over the older conventional highways. Each lane of the Interstate is 12 feet in width and the paved right hand shoulder is 7 feet in width. Therefore, these units should be able to remain entirely in the right hand lane since there are no bridges which would force them to move into the other lane. Twelve-foot wide mobile homes and modular building sections are being moved on the Interstate Highway System and other freeways and we have had no complaints about their movement.

It should be noted that no oversize or overweight load under permit may be moved on the Interstate Highway System on holidays, Saturdays or Sundays during the summer, and that these 14-foot wide units are further restricted since they may not move after 4:00 p.m. on Fridays nor after 12:00 noon on the day preceding any holiday.

WNV:btm

VOLK DEPOSITION, Exhibit 4

File

Division of Highways

File Copy No. 1195

Pl. 4

October 23, 1973

Commissioner W. Pudinski
Department of California
Highway Patrol
P.O. Box 898

Sacramento, California 95804

Dear Commissioner Pudinski:

Your letter of October 10, 1973, addressed to Colonel Lewis V. Versnik, has been forwarded to us for reply inasmuch as we are responsible for the issuance of permits for the movement of oversize mobile homes in Wisconsin.

[2]

In addition to the direct hazard to other vehicles which these mobile homes and modular building sections may cause, they are so wide that the right wheels of the transporting units often get onto the shoulder of the highway and cause a deep rut next to the paved surface. This is not only a maintenance problem but may also result in a condition hazardous to other vehicles which inadvertently get off of the paved surface. Our maintenance forces are quite concerned about the damage to the highway shoulders being done by the right wheels of these mobile home transporters.

We have also received complaints about excessive speed and swaying, fishtailing or weaving of these

[4]

The Division of Highways occasionally receives written and verbal complaints about the difficulty experienced in passing mobile homes because of their width and length, and because they often move more slowly than other traffic. Undoubtedly, some of the complaints are about some of the larger "travel" trailer types of mobile homes towed by a passenger car.

We are enclosing a listing of the highways on which an escort vehicle is required for mobile homes and modular building sections over 12 feet wide as well as a map of our state.

For loads exceeding 14-foot widths, permits may be issued but the move would be considered as a building move and the restrictions and total distance allowed would be much more restrictive. Permits have been and will continue to be issued for other types of loads wider than 14 feet, but each request is checked for such things as surface and roadway width, time of the year, average daily traffic volume, and the terrain.

The following summary of permits issued for mobile homes since 1969 will give you an idea of the volume of permitted loads in Wisconsin:

Mobile home annual permits which are limited to a maximum of 12 feet wide:

<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>
5,039	5,080	5,220	6,211

Mobile home single-trip permits issued for the same period is as follows:

<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>
5,990	12,210	17,692	20,703

In summary, while there is some evidence of concern by motorists about the delay and hazard resulting from the movement of these oversize vehicles on the highways, there is little in the accident record to indicate that they represent a problem.

If there is any further information which we can furnish to you, please do not hesitate to contact us.

Sincerely,
Wayne N. Volk, P.E.
Chief Traffic Engineer

By
Robert R. Weaver
Permits Supervisor

RRW:so

Enc.

cc: Lew. V. Versnik

VOLK DEPOSITION, Exhibit 9

File

Division of Highways

File Copy No. 1195-1

Pl. 9

October 8, 1974

W.J. Buglass
Deputy State Highway Engineer
Room 951 H.F.

Wayne N. Volk
Chief Traffic Engineer

Re: Application for Industrial Interplant Permit
Jos. Schlitz Brewing Company

In May, the Jos. Schlitz Brewing Company asked if an industrial interplant permit would be issued to the Company for the operation of a tractor-semi-trailer unit eight feet in width and 65 feet in overall length for the purpose of moving empty cans from their can production facility in Oak Creek, Wisconsin to the brewery in the central part of Milwaukee. They are having these cans transported in standard trailers so as to stay within the statutory length limit of 55 feet, but they are asking for the permit for the larger trailers to make the transportation more economical.

[2]

The 65-foot tractor-semi-trailers proposed by the Jos. Schlitz Brewing Company would be the same length as the vehicle combinations used by the American Motors Corporation. Also, the Schlitz trailers would be lightweight, and as indicated in Mr. Sanderson's letter, they should be able to maintain the same speeds as other traffic on the Expressway. For these reasons, we recommend that the Commission authorize the drafting of the

industrial interplant permits to allow the Schlitz Company to operate vehicles under these permits on the Expressway System between S.T.H. 100 (Ryan Road) and the nearest practicable exit to the Schlitz brewery north of the central business district.

WNV:sn
Attachment

VOLK DEPOSITION, Exhibit 11

APPROVAL OF ANNUAL PERMIT FOR INDUSTRIAL INTERPLANT OPERATIONS

In accordance with Section 348.27(4), Wisconsin Statutes, an Industrial Interplant Permit is hereby granted to Joseph Schlitz Brewing Company, P.O. Box 614, Milwaukee, Wisconsin 53201, for the operation of two single axle truck-tractors and six 57 1/2 foot semi-trailer vehicle combinations transporting empty cans and lids between the company can producing facilities in Oak Creek and the brewery in Milwaukee.

A maximum weight and dimensions of the vehicle combinations will not exceed statutory size and weight limits with the exception of the length which will not exceed 65 feet.

The approved route is from the can producing facilities located at 7620 S. 10th st. in Oak Creek thence northerly to Rawson Avenue, then west on Rawson Avenue to Interstate Highway 94, then north on Interstate Highway 94 to the Fourth Street exit, then north on Fourth Street to Walnut Street, and then east on Walnut Street to the intersection of Commerce and Walnut Streets and the Joseph Schlitz Brewing Company plant entrance. The routing from the Milwaukee Brewery location to the Oak Creek can producing facilities in Oak Creek will be the reverse of the above.

This permit is subject to all conditions hereon, and attached hereto, and imposed by Section 348.27(4), Wisconsin Statutes, and Sections HY 30.08 and HY 30.09, Wisconsin Administrative Code.

WISCONSIN DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

/s/ Wayne N. Volk
Chief Traffic Engineer

Date Approved: 4/28/75

Permit No: II-10-75

Date Expires: December 31, 1975

VOLK DEPOSITION, Exhibit 20
Departmental Correspondence
File Copy No. 1195-1
Pl. 20

Date: November 7, 1974
To: W.J. Buglass
Deputy State Highway Engineer
From: Robert R. Weaver
Permit Supervisor
Subject: Re Application For Annual Permit For
Industrial Interplant Operations Carver
Boat Corporation, Comm. Appr. 11/12/74
Pulaski, Wisconsin 54162

Attached is a request for renewal of an annual permit for industrial interplant operations for 1975 submitted by the Carver Boat Corporation of

Pulaski, Wisconsin, pursuant to Section 348.27(4), Wisconsin Statutes, for the operation of over-length and over-width vehicles for transporting loads from the manufacturing plant at Pulaski, Wisconsin to the Minnesota State Line to the west, to the Illinois State Line to the south, and to the Michigan State Line to the north.

The highways to be used from the manufacturing plant at Pulaski, Wisconsin, to the Minnesota State Line are: S.T.H. 160 and 29, Chippewa Bypass, U.S.H. 53, S.T.H. 29 and U.S.H. 12. We request authority to grant the use of that portion of I.H. 94 concurrent with U.S.H. 12 to the Minnesota State Line at Hudson.

The highways to be used to the south from the manufacturing plant at Pulaski, Wisconsin to the Illinois State Line are: S.T.H. 32 and 29, U.S.H. 41, S.T.H. 100 and U.S.H. 45.

The highways to be used to the north from the manufacturing plant at Pulaski, Wisconsin to the Michigan State Line are: S.T.H. 32 and 22, and U.S.H. 41.

The maximum dimensions of the vehicles and load will not exceed statutory size and/or weight limits except for the length of 60 feet and width of 11 feet, 10 inches.

Listed below are the makes, number of axles, and vehicle identification number of each vehicle for which an industrial interplant permit is requested:

[Serial numbers for six tractors, and eight trailers are omitted.]

Written permission has been received from the following villages and cities authorizing the Carver Boat Corporation to operate on their street systems: Village of Pulaski, City of Greenfield, Wauwatosa, Milwaukee, Hales Corner, West Allis, Marinette, Oak Creek, Shawano and Franklin.

It is recommended that the industrial interplant permit be granted.

RRW:jtm

VOLK DEPOSITION, Exhibit 21
GODFREY Letterhead

File
Division of Highways

Feb. 12, 1973

Wis. Dept. of Transportation
Div. of Motor Vehicles
Madison, Wis. 53702

Gentlemen:

We occasionally find it necessary to transport loads of boats with an overall length of 60-65'. The width in all cases will not exceed 8 Ft.

All length over 55' would be overhand on the front or rear of our truck-trailer combination. Our tractor-trailer rigs are 54' long.

What is the ruling on this type of a load moving on the highways within your state?

Very truly yours,
THE GODFREY CONVEYOR CO., INC.
W.H. Swanson
Traffic Mgr.

RJD/mko

VOLK DEPOSITION, Exhibit 21

File

Division of Highways

File Copy No. 1190

Pl. 21

February 27, 1973

The Godfrey Conveyor Company, Inc.

P.O. Box 1088

Elkhart, Indiana 46514

Attn: Mr. W.H. Swanson

Traffic Manager

Gentlemen: Your letter of February 12, 1973, addressed to the Division of Motor Vehicles has been forwarded to this office inasmuch as we are responsible for the issuance of permits for nondivisible oversize loads.

Inasmuch as your vehicles with a load of boats having an overall length of from 60-65 feet exceed the maximum length authorized in Wisconsin of 55 feet, this could not be approved inasmuch as

you are transporting more than one boat on the load.

In conclusion, therefore, it will be necessary when transporting a load of boats that you restrict your overall length of the vehicle combination to no more than 55 feet.

Sincerely, Wayne N. Volk, P.E.

Chief Traffic Engineer

By

Robert R. Weaver

Permit Supervisor

RRW:so

DEPOSITION OF ROBERT T. HUBER

\ Filed September 18, 1975

[Caption Omitted in Printing]

DIRECT EXAMINATION

By Mr. Varda:

* * *

[3]

Q. By whom are you employed?

[4]

A. The State of Wisconsin, the State Highway Commission.

Q. What is your precise title at this time?

A. Chairman of the State Highway Commission.

Q. What is your business address?

A. 951 is the room number, Hill Farms State Office Building.

Q. How long have you held your present position?

A. Since December 13, 1971.

Q. And what type of employment did you engage in prior to that time?

A. Twenty-three years worth of Legislature and an equal amount of time at the Joseph Schlitz Brewing Company.

* * *

[6]

Q. Does the Highway Commission approve all permits issued under 348.25 and the subsequent sections?

A. We don't specifically. Mr. Volk handles that as part of his assignment.

Q. Is Mr. Volk responsible for making a recommendation as to the issuance of particular permits or types of permits to the Highway Commission?

A. Yes.

Q. Is he relied upon for his recommendations of denial or grant of permits?

A. Yes.

Q. Does the Highway Commission regularly utilize other staff sources for making determinations on the issuance of permits; or is that directly the responsibility of Mr. Volk's division?

A. In some cases Mr. Volk and our State Highway engineer, Mr. Fiedler, and assorted staff people would be involved. But basically the recommendations usually come from Mr. Volk.

* * *

[7]

Q. From the face of this approval [Volk Exhibit 23, Badger Paper Permit] would you agree that it authorizes a movement of three vehicles in combination under 348.27(6) and Hy 30.14 of the Administrative Code relating to trailer permits?

A. Because of a specific problem it appears that it does.

Q. Mr. Volk testified yesterday that this combination was capable of being separated and each trailer unit could

[8]

have been moved separately over the authorized route. Would you agree with that testimony?

A. I'm not totally familiar with it. The case is in 1972, I don't recognize it as something very clear in my mind at this time.

Q. You would not deem this permit to have been inappropriately issued, given the testimony of Mr. Volk that the vehicles could have been separated and moved independently to the destination?

A. That's right.

Q. Mr. Volk testified that the reason for the movement of the three vehicles in combination was for operating economy. Can you agree that this would be an appropriate reason for issuance of the permit?

A. Well, I would not think it would be a general rule for the Commission to give support to those kinds of activities. In each of these cases it would be considered separately, the circumstances surrounding it.

Q. You would not deem it inappropriate for this permit to have been issued for that reason?

A. In this case?

Q. So the question is clear on the record, I was referring to this particular case. You would not deem it inappropriate for it to be issued for reason of operating

[9]

economy?

A. That's right.

Q. I show you a similar form which is part of Exhibit 26 in Mr. Volk's testimony and ask you if you would familiarize yourself with that.

(The witness is examining the document.)

A. This is a transportation of new vehicles, I believe.

Q. Does the permit reflected in Exhibit 26 from Mr. Volk's testimony duly authorize the movement of three vehicles in combination under 348.27 and Hy 30.06 of the Administrative Code?

A. For the purposes of transporting the new equipment to a usable state, yes, it does.

Q. And to your knowledge, sir, does the face of the permit authorize use of Highway 51 south from Stoughton to its intersection with Interstate 90?

A. Yes.

Q. Is that a two-lane road?

A. Yes.

Q. As this type of permit is drafted would it authorize an unlimited number of trips or vehicle miles over the authorized route during the term for which this permit is granted?

[10]

A. Because it says general permit I think that any and all of that new equipment could use that route.

* * *

[11]

Q. The Commission has established by rule certain reasonable conditions and reasonable rules for the issuance

[12]

of permits under that section of the statutes?

A. Yes.

Q. If an applicant complies with the rules and conditions which have been established would the Commission through Mr. Volk generally grant the permit to the applicant?

A. The Commission would still decide on the basis of the individual cases, individual requests.

Q. You do not review each individual request but leave that to the discretion of Mr. Volk, is that right?

A. That's correct.

Q. Now, to the extent again, with respect to Exhibit 26, if Mr. Volk testified that the reason for moving the two trailers in the 65-foot vehicle combination to the State line for economic reason, you would not deem his reason for approval of the permit inappropriate?

A. That's right.

* * *

[14]

Q. So if the Highway Commission for some reason determined that 65-foot auto carriers were a hazard on the highway, unsafe to other traffic, the Commission could withhold granting of any permits under that section?

A. I would think there are additional sections which allow us and give us responsibility to make sure it is safe equipment.

* * *

[20]

Q. ...Are you familiar with the issuance of the Industrial Interplant Permit to the American Motors Corporation of Kenosha?

A. Generally speaking.

Q. Just to clarify this in your mind, and subject to your check, the permit we have just referred to authorized the use of some 22 tractors and a number of trailers in combination of two vehicles over specified routes. The total length being some 71 feet, 4 inches. Is that correct from your observations?

A. That's correct.

Q. And directing your attention to the permit which at its

[21]

foot -- which is part of Exhibit 3, and at its foot is indicated as, "Industrial Interplant Permit II-6-75." I ask if you would familiarize yourself with that document or confirm that it authorized the movement of some 32 tractor-semitrailer combinations over certain highways in Racine, Kenosha and Milwaukee Counties, which amount to a total length on each unit of some 64 feet?

A. That's correct.

Q. Now, still making reference to these permit approvals, would you agree that the loads which are authorized to be transported in each case are loads which could be divided for transportation within separate vehicles within the statutory limits?

A. I would say so, yes.

Q. And would you agree that the permits would authorize an unlimited number of trips or vehicle miles or as many as desired by the permittee under the terms of the permit, during the term of the permit?

A. I don't know whether it is a limitless situation. I think the Commission again makes a decision how many shall be involved.

Q. The Commission made a decision on how many vehicles will be given permits, but those permits do not restrict --

A. The number of trips, you mean?

[22]

Q. Yes.

A. That's correct.

Q. Of this type of vehicle over the Interstate Highway.

Could this type of vehicle move over the Interstate Highways on which it is authorized at speeds equivalent to other traffic?

- A. I'm not sure. I believe it would be the case.
- Q. Is there now a uniform rule of 55 miles an hour on State trunk highways in Wisconsin for both trucks and automobiles?
- A. We have uniform speed limits, yes.
- Q. Would you consider American Motors an important employer in Wisconsin?
- A. I would have to say that without equivocation.
- Q. Would the General Motors Assembly Plant in Janesville be an important employer in that part of Wisconsin?
- A. Yes, it would.

* * *

[24]

- Q. In denying the permits sought by the plaintiffs in this proceeding, Raymond Motor Transportation and Consolidated Freightways, did Mr. Volk seek the advice of the Highway Commission or approval or direction from the Highway Commission?
- A. Yes. Those circumstances were brought to our attention. The Commission made the decision.
- Q. Did Mr. Volk make a report? I ask this because we could not find any written reports. Did Mr. Volk make a written report to the Highway Commission?

- A. I don't recall.
- Q. How would he have made the Commission aware of the pendency of the permit application?
- [25]
- A. We had substantial conversations on the subject of the requested permits not only from these organizations but the general subject.
- Q. Did he cite or produce or reference any of the resources that we just identified, of resources which might be used to guide the Highway Commission in making a determination to grant or deny these permits?
- A. They may well have been part of the discussion but I don't recall the specifics of it.
- Q. Do you recall receiving a series of requests for issuance of trailer train permits of the type sought by Raymond and CF, 65-foot double bottoms, from different trucking companies in about July of 1972?
- A. Yes, I do.
- Q. Would you agree with Mr. Volk's testimony that no formal safety recommendation was sought or given at that time when those permit requests were denied?
- A. It was a Commission decision with specific recommendations from the Traffic Department.

Q. So you would agree with Mr. Volk's testimony?

A. That's correct.

* * *

[30]

FURTHER EXAMINATION

By Mr. Varda:

Q. Mr. Huber, would you agree that the Highway Commission now has authority in the Statutes and in the divisions in the Administrative Code to issue permits for the movement of three vehicles in combination?

A. I believe that's correct.

Q. And do the vehicles for which the plaintiffs in this proceeding sought permits fall within the type of vehicle described in Section 348.27(6) of the Statutes?

A. I'm not sure, but I would expect that there is some authority there.

[31]

Q. The vehicle, the physical type of equipment barring other considerations, the type of equipment that was sought to be permitted is the same type of equipment described in this statutory section?

A. I thought your question was as to whether that was the only factor that guided us.

Q. My question relates solely to the type of equipment that Raymond Motor Transportation and Consolidated Freight sought permits for. That equipment is covered by this statutory section?

A. Correct.

Q. In fact, there are other sections under which the Commission has granted at least one permit for the operation of this type of equipment inasmuch as the Commission authorized Stoughton Body, Inc., as reflected in Exhibit 26 to Mr. Volk's testimony, to move 65-foot twin trailer equipment. Is that a fair statement?

A. Yes.

Q. Does that make the reference clear; was the permit issued under 348.27(3)?

A. Yes.

* * *

[32]

Q. Is it your testimony, Mr. Huber, that the Highway Commission has somehow taken into account and relied upon analyses of public opinion in determining to deny the plaintiffs' permit applications?

A. Our position is as a result of the legislative actions which are deemed by this Commission to be legislative

[33]

directions.

* * *

[35]

Q. Well, is it a fair statement of your testimony that in denying the plaintiffs' permit the Highway Commission took into account factors other than merely those which the Highway Commission might deem necessary for the safety of travel and the protection of the highways?

A. I think I answered that before by saying that legislative direction is one of the major factors in our decision.

Q. The Highway Commission itself would not have determined that granting of the permits posed any danger whatsoever to the safety of travel?

A. I'm not prepared to make a statement relative to the safety of these vehicles. I don't think I would comment on it at this time.

[36]

Q. Well, the Commission --

A. We have only had limited use because of the permit situation such as you described it, and I'm not really in a position to say that we have gone into depth to determine the safety of these vehicles if they would be made legal.

Q. When you say "made legal," you mean authorized in some other way than by permits?

A. By the Legislature.

Q. Currently the Statutes would authorize the issuance of permits for these vehicles if you deemed it appropriate to issue them?

A. That's right.

* * *

[37]

FURTHER EXAMINATION

By Mr. Harriman:

Q. In answer to the questions as to how the Commission feels or what reasons they had, you are speaking for all the members of the Commission?

A. Correct.

* * *

[39]

[Jurat]

* * *

* * * * *

DEPOSITION OF ROBERT R. WEAVER
 Filed September 18, 1975
 [Caption Omitted in Printing]

* * *

[2]

DIRECT EXAMINATION

By Mr. Varda:

Q. By whom are you employed?

A. The Wisconsin Department of Transportation,
Division of Highways.

* * *

[3]

Q. And what is your title?

A. Permit Supervisor.

Q. And how long have you been so employed?

A. Since April, 1967.

* * *

Q. And were you trained in that position by Mr. Volk?

A. Yes, by Mr. Volk and my predecessor who was retiring.

Q. And are you familiar with the permit section of the Statutes under 348.25 through .27 and Chapter 30 of the Wisconsin Administrative Code?

A. Yes.

* * *

Q. Do you work with those Statute provisions and Code provisions on a day-to-day basis?

A. Yes.

[4]

Q. You have before you a form which has been marked Exhibit 2.

[5]

Can you identify that for the record?

A. Yes. It's the annual permit application to transport large and/or heavy articles.

Q. And is that utilized in connection with permits issued under 348.27(2)?

A. Yes.

Q. That permit form has no space and does not require information relative to the number of trips or actual operation to be conducted under the permit?

A. That's correct.

Q. And there is no indication of the required route on that form, is that correct?

A. That is correct.

Q. Do you have limitations on road utilization for vehicles operating under or on permits issued on Exhibit 2?

THE WITNESS: Could we go off the record a moment?

(Off the record discussion)

Q. Do you have some roads that are which you restrict operations of this type of permit?

A. No.

Q. Do vehicles operating under permits such as Exhibit 2 operate on two-lane roads in Wisconsin?

A. Yes.

[6]

(Plaintiff's Exhibit No. 3, Application, marked for identification)

Q. You have before you a copy of a form which has been marked as Exhibit 3. Can you identify that for the record?

A. Yes. It is a vehicle transportation permit application.

Q. And is this form utilized in connection with permits issued under 348.27(5)?

A. Yes.

(Plaintiff's Exhibit No. 4, Application, marked for identification)

Q. Do vehicles operating under permits exemplified by Exhibit 3 operate on all roads in Wisconsin?

A. Class A highways.

Q. Is there a restriction against operation of such vehicles on the expressway system in Milwaukee?

A. I'd have to refer to it just a moment. They are not valid for operation on any part of the expressway.

Q. Do such vehicles operate on two-lane highways throughout Wisconsin?

A. Yes, Class A highways, yes.

Q. Can you identify what has been marked as Exhibit 4?

A. Yes. This is an annual state-wide permit application to transport oversize mobile homes and modular building sections?

Q. And I have set the application form utilized in connection

[7]

with permits issued under Section 348.27(7) of the Statutes.

A. Yes.

Q. Does the Department maintain a tabulation of the total permits issued annually in the category reflected by Exhibit 4?

A. Yes.

Q. Is that record maintained with respect to various lengths of vehicles?

A. No.

Q. Is that information considered not pertinent to the administration of the Section of the Statutes?

A. Well, in answer to your question there is a maximum length limit and width limit that is authorized under this particular type of a permit.

* * *

[9]

Q. What was the purpose of the memo that has been identified as Exhibit 5?

A. As I recall, Mr. Landsness, the Chief Maintenance Engineer, was going to deliver a

dissertation to someone, but I really don't know who, and he was asking for information relative to permit movement and oversize vehicles and loads.

* * *

[10]

Q. ...Were you responsible for the Department correspondence indicating the unavailability of a permit for the Godfrey Conveyor Company of Elkhart, Indiana, to transport loads of boats in excess of fifty-five foot length limits in Wisconsin?

A. Yes.

Q. And did you hear Mr. Volk's testimony to the effect that such a permit could have been issued to the Godfrey Conveyor Company, Inc. if it were a manufacturer located at a Wisconsin point transporting such divisible loads of boats overlenghts to the Wisconsin State line or to a point in Wisconsin?

A. Yes, if it were within the terms of the Industrial Interplant Permit under 348.27(4).

Q. If the manufacturer of boats in a Wisconsin point sought the very same authorization as sought by the Indiana firm, would the permit be granted?

A. In other words the Indiana firm actually had his business, the manufacturer of boats, in Wisconsin, correct?

Q. Right.

A. Yes.

Q. The permit would then issue?

A. That's right.

Q. To that extent this would be an exception to the statement

[11]

contained in Exhibit 5 with respect to the effect of the policy as between Wisconsin and non-Wisconsin residents?

A. Um-hum.

Q. Yes?

A. Yes.

[14]

Q. Now, in the next paragraph [of Exhibit 5] you state that many Wisconsin industries depend upon their ability to secure permits for oversize and overweight loads, and you use several specific examples when you refer to American Motors and General Motors vehicle assembly in Wisconsin. You are referring, are you not, to loads which could be divided except for economic reasons?

A. Well, I would think that it was an [sic] is the intent of the Legislation, Governor, and the Highway Commission and news media, for instance, letters, and so forth, that we would -- Let's see. How do I want to put it? To pass legislation allowing the movement of, for instance, enabling legislation to move under an industrial interplant permit as with, for example, automobile bodies, car bodies, this type of thing.

Q. Let me get the specific question. Now you are making reference in this memorandum to Wisconsin industries, and their dependence upon ability to secure these permits, and you then make reference to American Motors and General Motors. As an example, American Motors has a manufacturing facility

[15]

located at Kenosha and Milwaukee, is that correct?

A. Yes.

Q. And General Motors has an assembly plant located at Janesville?

A. Correct.

Q. Now, the loads that would be transported under permit are loads which of themselves, auto bodies, for example, could be divided for

movement on vehicles within the statutory length and width requirements?

A. Sure. *L*

Q. Now, it's for economic reasons, as you recognized in this last sentence in this paragraph, that permits are issued for overlength vehicles transporting such items?

A. Yeah, where I make reference to the vehicles transportation permit allowing a load in excess of the fifty-five foot limit.

Q. When you say they could not, could American Motors and General Motors vehicles assembled in Wisconsin could not be economically moved, you are citing could not be economically moved as the reason for issuance of permits for loads which would otherwise, which could otherwise, of themselves be divided into separate units within the statutory limits?

A. The only thing that I could say is that under the authority mandated by the Legislature that permits may be issued for

[16]

vehicles transportation permits under 348.27(5).

Q. Are you familiar with the issuance of permits to A.O. Smith and Schlitz Brewing Company, are you not?

A. Um-hum.

Q. Now, those permits are issued for the same reason?

A. It's my understanding, yes.

Q. And the permits issued to Stoughton Auto Body, Inc. for transportation of sixty-five foot double bottom units from Stoughton to the State line is for the same reason?

A. Yes, that is my understanding, yes.

* * *

[Jurat]

WEAVER DEPOSITION; Exhibit 5

File

Departmental Correspondence

Division of Highways

File Copy No. 1190

Pl J

Date: November 15, 1973

To: G. T. Landsness

Chief Maintenance Engineer
 From: Robert R. Weaver
 Permits Supervisor
 Subject: Re: Information on Permits for
 Oversize and/or Overweight Loads

Per your request for a brief description regarding the issuance of permits for the movement of oversize and overweight loads on public highways.

Sections 348.25-348.28 inclusive, Wisconsin Statutes, authorizes the issuance of permits for vehicles and loads exceeding statutory size and weight limitations, and give guidance as to the form, content and conditions of permits, the types of permits which may be issued and the officer or agency authorized to issue permits. A primary consideration in the case of most permits is that they "shall be issued only for the transporting of single article or vehicle which exceeds statutory size, weight or load limitations and which cannot reasonably be divided or reduced to comply with" those limitations.

The types of permits mentioned in the statutes include:

- Single-trip Permits
- Industrial Interplant Permits
- Mobile Home Annual Permits
- Pole and Pipe Transportation Permits
- Mobile Home Single-trip Permits
- Vehicle Transportation Permits
- Annual Permits
- Annual Trailer-Train Permits
- General Permits

Single-trip permits (including single-trip mobile home permits) and annual permits (including annual mobile home permits) represent the great bulk of permits issued. The State Highway Commission may issue all of the above types of permits, and the local authorities with respect to highways under their jurisdiction may issue single-trip, trailer-train and general permits. During 1972 the central office of the Division of Highways issued approximately 38,000 single-trip permits, 24,000 annual permits and 3,200 vehicle transportation permits. Fewer than 550 permits of all other types were issued in 1972.

Attached is a copy of the Wisconsin Administrative Code, Chapter Hy 30, covering the rules of the Commission for the issuance of permits as

authorized by Section 348.25, 348.26, and 348.27, Wisconsin Statutes as well as the most recent change of Hy 30 approved by the Commission November 12, 1973 which as yet has not been published by the Revisor of Statutes which, however, we expect to have in effect in the early months of 1974. Applications may be made in writing or by wire communications transmission, but are not accepted via telephone. Permits are issued on the basis of policies established by the statutes and by the Commission without regard to whether the applicant is a resident of Wisconsin or not. Insurance coverage to reimburse the public for personal injury or damage to property resulting from movement under a permit is required, the amounts being dependent upon the size and weight of the load.

Most single-trip permits and all annual permits are issued by the Permit Unit of the Traffic Section of the Bureau of Engineering, Division of Highways. No charge is made for any permit, but the permittee is required to pay the cost of issuance of permits by wire communication systems. The cost of issuing permits during calendar 1972 is estimated to be approximately \$75,000 for salaries and material alone.

Each permit specifies the maximum size and weight of the combination of vehicle and load which may be operated under the permit. The weight limitations are determined by calculations of the ability of various highway surfaces and bridge structures to carry a limited number of loads of specified magnitudes and distributions. The limitations on size are determined by considerations for the safety and reasonable mobility of other traffic using the highway as well as the special requirements for the object to be transported or the industry involved in the transportation. Presently the normal maximum limitation on size of vehicle and load for the various permit types are as follows:

<u>Permit Type</u>	<u>Length- Single Vehicle</u>	<u>(Vehicle and Load) Vehicle Combination</u>	<u>Overall Width</u>	<u>Overall Height</u>
Single Trip	50 Feet	75 Feet	16 Feet	20 Feet
Annual	50 Feet	75 Feet	12 Feet	16 Feet
Pole and Pipe				
Transportation	50 Feet	100 Feet	Statutory	Statutory
Vehicle				
Transportation	--	65 Feet	Statutory	Statutory
Trailer-Train	--	100 Feet	Statutory	Statutory
Mobile Home				
Annual	--	85 Feet	12 Feet	Statutory
Mobile Train				
(Single-Trip or				
Annual)	60 Feet	--	--	--

Weight limitations of single-trip and annual permits.

As follows except as these weights may be reduced because of axle spacing less than the maximum as described in Paragraph (c):

* * *

Single-trip permits, on the other hand, being issued for a specific trip, details the route which may be followed as well as the size and weight limitations. Since they generally apply to larger and heavier loads, special limitations as to hours of operation, escort requirements, etc. are often placed upon single-trip permits.

The lower size and weight limitations on annual permits are based upon the fact that there is relatively little surveillance of operations under these permits once the permit has been issued. Therefore, the size and weight of the load which may be moved under an annual permit should be restricted to the maximum which can reasonably be transported on most of the highways of the state.

Since single-trip permits issued by the Division of Highways are valid only on the State Trunk Highway System, and since each application must detail the size, weight and character of the load as well as the route proposed to be used, the maximum dimensions and weight which the Commission will authorize under a single-trip permit are considerably greater than under an annual permit. Although the above table does not so indicate, single-trip permits are issued for the transportation of buildings, with proper escort and detours where necessary, up to 30 or 35 feet in width. However, in such cases, the mover must make proper provisions for a fully marked detour which will adequately handle traffic during the period that the road is closed to traffic. Furthermore, the Commission has placed limitations upon the distance which a load may be transported if it is of such a size as to occupy a substantial portion of the roadway width.

Permits for mobile homes and modular building sections over 12 feet in width (and all other types of loads under permit) are not valid on any portion of the Interstate Highway System (except for sections between Tomah, Wisconsin and the Minnesota State line at La Crosse [I.H. 90], and

the Minnesota State Line at Hudson [I.H. 94] where we do authorize 14-foot wide mobile homes and modular building sections to travel). Due to the volume of traffic from Tomah east to the Minnesota Line at La Crosse and Hudson, it was felt we could open this portion of the Interstate System to 14-foot wide mobile home units. We believe that their size and speed make them an unusual hazard on freeways where drivers are not expecting to find such large, low-moving loads. No permit for any oversize or overweight vehicle is valid on the Milwaukee Expressway System, all of which is under jurisdiction of the State Division of Highways. We believe that drivers using conventional highways which have pedestrians, agricultural implements and farm tractors, horse-drawn vehicles and other slow-moving or large loads, are conditioned to expect such loads and therefore, it is less hazardous to place these permitted loads on conventional highways than on high-speed freeways.

Permits are not valid during the hours of darkness nor during the period beginning at 12 noon on the day preceding and continuing until sunrise on the day following every Sunday and major holiday. Permits are nonvalid on Saturday mornings from

May 15 to September 15 each year. Mobile homes greater than 12 feet in width are allowed to move between sunrise and 4 p.m. and between 6 p.m. and sunset on Mondays through Thursdays and between sunrise and 4 p.m. on Fridays, except that they may not move after 12 noon on the day preceding any holiday.

Furthermore, mobile homes over 12 feet in width may not be moved during the 7-8 a.m. morning rush hour and after 4 p.m. in certain counties and urban areas near some of the major cities. In addition, similar restrictions are applied to wider loads of all types. Many buildings over 12 feet wide must be moved only during the low traffic hours between 2 a.m. and 6 a.m. under proper police escort and with adequate lighting.

Permits are issued because there are many types of loads which cannot reasonably be divided and moved within statutory size and weight limitations. Examples of loads which are moved under single-trip or annual permits include: buildings, storage tanks, construction equipment such as power shovels or bulldozers, mobile homes and modular building sections, wood and steel power poles, prestressed concrete buildings and bridge beams,

large boats (such as those manufactured at Sturgeon Bay), electrical transformers and many types of industrial machinery. Examples of loads which cannot be moved under permit are: oversize truck tankers, loads which are oversize because they consist of a number of articles none of which exceeds statutory size limitations, or overweight loads which consist of more than one article.

Many Wisconsin industries depend upon their ability to secure permits for oversize or overweight loads. The Allis-Chalmers Company in Milwaukee is only one of many Wisconsin industries manufacturing large industrial machinery, some of which cannot be moved other than by highway. There are many mobile home and modular building manufacturers in Wisconsin who could not operate without permits. American Motors and General Motors vehicles assembled in Wisconsin could not be economically moved by highway except under a vehicle transportation permits allowing a load in excess of the statutory 55-foot length limit.

I hope that the foregoing fulfills your requirement for a description of the issuance of permits pursuant to Chapter 348, Wisconsin Statutes. I would be happy to provide additional details on any particular aspects of this activity.

RRW:dlb

AFFIDAVIT OF J. A. FLIPPIN

Filed October 20, 1975

[Caption Omitted in Printing]

STATE OF WISCONSIN)
) ss.
 COUNTY OF ROCK)

J. A. FLIPPIN, being first duly sworn on
 oath, deposes and says that:

1. He is the Licensing Supervisor of Janesville Auto Transport Company, the business address of which is Box 959, Janesville, Wisconsin 53545.
2. The business of Janesville Auto Transport Company is the for-hire transportation of new automobiles. In such business, Janesville Auto Transport Company operates under authority issued by the Interstate Commerce Commission and the Public Service Commission of

Wisconsin, under which it provides service in interstate and intrastate commerce.

3. The majority of the equipment operated by Janesville Auto Transport Company is truck and trailer combinations which are sixty-five feet in length. Except for the length, these tractor-trailer combinations are within the statutory size and weight limits authorized on Wisconsin highways. The sixty-five foot truck and trailer combinations are operated under annual permits issued by the Wisconsin Department of Transportation.
4. Attached hereto as Appendix JAF-A and incorporated herein by reference, is a picture of a sixty-five foot twin trailer combination and a sixty-five foot truck and trailer combination. The latter is the same type of equipment generally utilized by Janesville Auto Transport Company in its business.
5. Attached hereto as Appendix JAF-B and incorporated herein by reference is a certified copy of Page 46-A of the Report of Janesville Auto Transport Company, for the year 1974, which is on file with

the Wisconsin Public Service Commission. Appendix JAF-B correctly reflects miles operated by Janesville Auto Transport Company over highways in Wisconsin, including both two and four-lane highways, on which majority of equipment operated by Janesville Auto Transport Company was sixty-five foot truck trailer combinations similar to that pictured on Appendix JAF-A.

6. Janesville Auto Transport Company regularly operates a 65-foot truck trailer combination over two lane highways in Wisconsin serving many communities and including, by way of example, communities such as Rhinelander, Wausau, Stevens Point, Clintonville, Rice Lake, Richland Center, Mineral Point, and Elkhorn, all of which are served by movement of sixty-five foot truck trailer combinations over two lane highways.

/s/ J. A. Flippin

[Jurat]

JANESVILLE AUTO TRANSPORT CO.

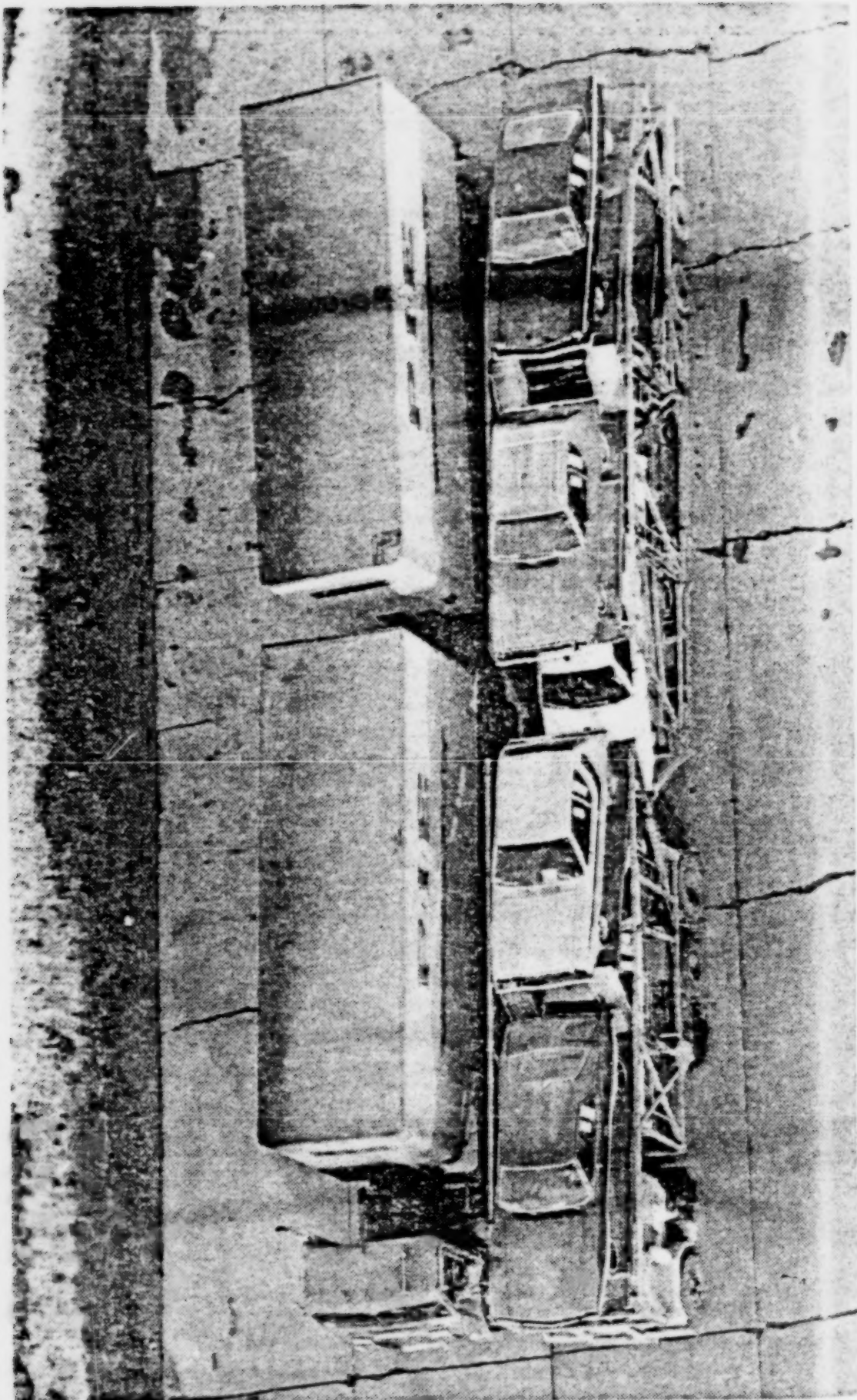
1974 Annual Report

Form 1-1975

44-A

WISCONSIN STATEMENT - PROPERTY CARRIERS							
OPERATING REVENUES							
Line No.	Particulars (a)	Intercity service Common (b)	Intercity service Contract (c)	Local Carriage (d)	Intercity service for other Class I and II motor carriers (e)	Other operating revenues (f)	Total system operating revenues (g)
1	Wisconsin insurance	\$ 967,249	\$	\$	\$	\$ 098,290	\$ 1,065,539
2	Wisconsin insurance*	xxx	xxx	xxx	xxx	xxx	xxx
3	Originated in Wisconsin	11,147,745	-	-	xxx	xxx	11,147,745
4	Terminated in Wisconsin	199,049	-	-	xxx	xxx	199,049
5	Transit in Wisconsin	11,346,794	-	-	xxx	xxx	11,346,794
6	Wisconsin insurance-Total	11,346,794	-	-	-	-	11,346,794
7	Entirely non-Wisconsin	-	-	-	359,291	-	359,291
8	SYSTEM TOTAL	19,170,682	-	-	359,291	1,098,290	20,628,263
9	Wisconsin portion of line 8	2,661,957	-	-	-	-	2,661,957
10	Wisconsin total, lines 1 & 9	11,628,206	-	-	-	1,098,290	12,726,496
11	*The total charges accruing to the reporting carrier on traffic touching Wisconsin. The Wisconsin portion thereof should be stated in line 9.						
12	Give description of basis used for line 9: loaded - miles						
COMPARE WITH AND CHECK AGAINST THE DATA FILED IN THE PUBLIC SERVICE COMMISSION OFFICE FILED IN THE STATE OF WISCONSIN							
DATE: October 9, 1975							
BY: J. A. Flippin							
OPERATING STATISTICS							
VEHICLE MILES OPERATED IN WISCONSIN							
Line No.	Particulars (a)	Inter-city (b)	Inter-city with through (c)	Inter-city without through (d)	Total (e)		
13	Inter-city motor miles - common	5,873,450	480,755	22,409	6,376,614		
14	Inter-city motor miles - contract	-	-	-	-		
15	Inter-city motor miles - common	5,873,450	480,755	22,409	6,376,614		
16	Inter-city motor miles - contract	-	-	-	-		
17	TOTAL INTER-CITY MILES OPERATED IN WISCONSIN	5,873,450	480,755	22,409	6,376,614		
18	Miles in local carriage, including service for other carriers	-	-	-	-		
OTHER STATISTICS							
19	Inter-city Wisconsin tons carried in inter-city service	77,809	-	-	77,809		
20	Inter-city tons carried in inter-city service, out of, or through Wisconsin	440,920	-	-	440,920		
21	TOTAL TONS CARRIED ENTIRELY OR PARTLY IN WISCONSIN	518,729	-	-	518,729		
22	Ton-miles-intercity - On Wisconsin inter-city shipments	5,487,340	-	-	5,487,340		
23	Ton-miles-intercity - Value: Wisconsin on Wisconsin inter-city shipments	21,072,312	-	-	21,072,312		
24	TOTAL TON-MILES OF INTER-CITY SERVICE PERFORMED IN WISCONSIN	5,487,340	-	-	5,487,340		
Additional information on common carrier tonnage originated and/or terminated in Wisconsin							
25		Inter-city		Inter-city			
26		77,809		394,660			
27	Tons received in Wisconsin by reporting carrier	From shipper		From connecting carrier			
28		77,809		440,920			
29	Tons delivered in Wisconsin by reporting carrier	To consignee		To connecting carrier			
30		77,809		440,920			
31		77,809		440,920			

BEST COPY AVAILABLE



STIPULATION AS TO ADDITIONAL EVIDENCE

Filed December 11, 1975

[Caption Omitted in Printing]

IT IS STIPULATED AND AGREED between counsel that the attached map showing the status of twin trailers on public roads and turnpikes in the various states as of November 1975, may be received and considered as evidence in this matter.

Dated this 2nd day of December, 1975.

BRONSON C. LA FOLLETTE

Attorney General

By: /s/ Albert Harriman

Assistant Attorney

General

Attorneys for

Defendants

DeWitt, McAndrews & Porter,
S.C.

STATUS OF TWIN TRAILERS ON PUBLIC ROADS AND TURNPIKES 1/ NOVEMBER, 1975



AFFIDAVIT OF ROBERT F. HEMPHILL, JR.
Filed October 10, 1975
[Caption Omitted in Printing]

DISTRICT OF)
) ss.
COLUMBIA)

I, ROBERT F. HEMPHILL, JR., being first duly sworn on oath according to law depose and state as follows:

1. I am Associate Assistant Administrator for Transportation Programs, Office of Energy Conservation and Environment, Federal Energy Administration ("FEA"). Prior to joining FEA's predecessor agency, the Federal Energy Office, I was a Management Associate in the Natural Resources, Energy and Science area at the Office of Management and Budget. I hold a Bachelor of

Science degree from Yale University, a Master of Arts degree from UCLA, and a Master of Business Administration degree from George Washington University. This affidavit is based on my personal knowledge and the records of the FEA and is submitted for the sole purpose of presenting this Court with the FEA's views on the energy conservation potential of twin-trailers. The FEA takes no position on other issues which have or might arise in this litigation.

[2]

2. The FEA, as part of its congressionally-mandated tasks of promoting efficient use of energy resources and energy conservation, has researched the energy conservation potential of twin-trailers used in commercial freight transport on public highways. The conclusions the FEA has reached will be briefly discussed below; the data developed by the FEA is attached to this affidavit in Exhibits A-C.

* * *

4. The State of Wisconsin's restrictions on twin-trailers are of concern because the State straddles two major transcontinental highways, Interstate 90 and Interstate 94. These interstate

routes form the principal, most direct, non-circuitous interstate routing between Chicago, Illinois and points East and between Minneapolis-St. Paul, Minnesota and points West. Because twin-trailers carrying general commodity freight are prevented from traveling the Wisconsin segments of both Interstate 90 and Interstate 94, no general commodity "through-service" is available between Detroit and Seattle, Chicago and Minneapolis, and intermediary points. Thus, the twin-trailers must be uncoupled and hauled separately through Wisconsin or must follow a circuitous route and by-pass the State. In addition, shipments or containerized freight on the Great Lakes, which are particularly adaptable to transport on twin-trailers, are often diverted from the Port of Milwaukee to other cities because of Wisconsin's limitation.

[3]

5. In January 1975, a joint Federal study concluded that if weight, length and configuration limits imposed upon truck operations by Federal and State laws were unified, significant reductions in heavy duty truck fuel consumption could [sic] be realized. Moreover, the interstate commerce which has to pass through Wisconsin on Interstates 90 and 94 has much to gain in improved modal

operations and energy efficiency from greater uniformity in legal limits on the dimensions and weights of the freight motor vehicles. For these reasons, the FEA wishes to present this Court with its specific views on the energy conservation implications of the use of twin-trailers.

B. Analysis of Energy Efficiency of Twin-Trailers**

6. In most intercity freight movements, greater economic and fuel efficiencies are obtained from increased dimensions and weights of vehicles, since the energy efficiency per payload ton-mile is decreased as the gross vehicle payload increases up to a certain limit. Similarly, twin-trailer movements of freight will allow increased payload per vehicle with the increased volume and will permit freight to be hauled in fewer vehicles. It will also increase utilization of engine and driver capacity and will permit truck operators to easily consolidate two smaller trailers without requiring separate pick up and delivery. Overall, in order to haul a given payload of freight tonnage, the trade-off will be larger and heavier vehicles in exchange for a reduced number of vehicle units on interstate routes operating at greater efficiency levels.

[4]

7. Within the context of existing weight limits, the FEA's research study, which utilizes national average data, indicates that twin-trailers offer 20 percent fuel savings over single-unit trailers for low density loads. Specific energy savings will be the product of fuel savings between double and single trailers and the amount of diversion from single to twin-trailer units.

8. Utilizing actual operational data from a large transcontinental motor carrier firm, Yellow Freight Systems, Inc., the FEA extended its analysis of energy savings resulting from a diversion of freight movements from single to twin-trailer units. Our conclusions indicate an energy savings potential of 12.0 percent in operating twin-trailers at a combination length of 65 feet rather than 45-foot trailers with a combination length of 55 feet. A shift from 40-foot trailers to twin-trailers will save 19.5 percent of the diesel fuel which was previously used to carry the same volume of freight.

9. Our analysis further indicated only insignificant variations in the 12.0 percent and the 19.5 percent energy savings estimates, if the data utilized were adversely subjected to a 10 percent error. The three derived variables used in the

calculations are the trailer cubic capacity utilization rate, the average weight of a cubic foot of general freight, and the energy consumption rate involved in hauling freight by truck (BTU per ton-mile). When these variables are subjected to a 10 percent error factor, the energy savings which results [sic] when 40 to 45-foot single trailers are replaced with 65-foot twin-trailers would be 19.1 percent and 11.7 percent, respectively.

[5]

C. Additional Considerations.

10. FEA's analysis indicated improvements in the energy efficiency of truck operations with the relaxation of existing size and weight limitations, but these savings must be assessed against the impacts on highway safety and maintenance costs, as well as shifts in modal competition.

11. The effects of twin-trailers on intermodal competition is generally limited to rail freight, because trucking tariffs are usually too high to attract the low value, low-rated goods that characterize practically all barge freight and a significant portion of rail freight. In addition, the high value, high tariff goods moving by air freight generally require a level of service that trucks cannot provide. As a result, the principal classes of freight which especially lend themselves to twin-

trailer use are mail, parcels, freight-forwarded traffic, and COFC/TOFC [Container On Flat Car/Trailer On Flat Car] freight moving by rail.

12. Although rail freight is generally less energy intensive in areas with flat terrain such as Wisconsin, it is doubtful that the introduction of twin-trailers in one additional state in the region will greatly influence modal choice of long distance freight and shift traffic from the railroads.

D. Conclusion.

13. Although the FEA emphasizes that the issue of allowing twin-trailers to use the interstate routes in Wisconsin should not be resolved on an energy basis alone, our analysis shows significant potential for energy conservation through the utilization of twin-trailers. Motor carriers of general commodity freight will be able to travel across Wisconsin by direct and efficient routings and integrate and utilize uniform equipment in their operations East and West of Wisconsin. Further, the ability to use twin-trailers on the interstate routes going through Wisconsin will allow the motor carriers

[6]

of interstate and intrastate commerce to utilize their most energy efficient equipment, reduce their costs, and eliminate unnecessary unloadings and

reloadings at the Wisconsin border. In addition, containerized freight which is particularly adaptable to the utilization of twin-trailer services will be attracted to energy efficient barge transportation through the Port of Milwaukee.

14. The FEA is vitally concerned with this Nation's current energy problems as well as steps that can be taken to bring about economies in energy consumption. The objective of our analysis, therefore, is to present our specific views on the energy consumption aspects of the instant controversy.

/s/ Robert F. Hemphill, Jr.

[Jurat]

[Exhibits Omitted in Printing]

[Footnotes Omitted in Printing]

SWORN TESTIMONY OF R.E. WRIGHTSON

Filed October 20, 1975

[Caption Omitted in Printing]

[1]

...I am Director of Corporate Planning for Consolidated Freightways Corporation of Delaware ("CF") and have held this position since October, 1974.

Prior to that time, I was Director of Budgets for CF from June 1, 1967 to October, 1974. I have been employed by CF in the Accounting and Financial Department since July 1, 1962.

As Director of Corporate Planning, I am responsible for short, medium, and long-range financial planning, for coordination and preparation of operating plans for use by all levels of operation, and for all types of financial analyses and operating review. My duties require me to be familiar with all phases of the operations of the Company, which

[2]

necessitate traveling to management meetings and reviewing operations on location throughout CF's system.

I hold a Bachelor of Science Degree in Business Administration from San Jose State College in San Jose, California. I have been designated by CF to give the following sworn testimony in this proceeding.

PURPOSE AND SCOPE OF TESTIMONY: The purpose of my testimony is to demonstrate the cost burden on CF directly related to the refusal of the State of Wisconsin to allow or "permit" operation of 65-foot Twin Trailer combinations ["Twin Trailer(s)"] over certain interstate highways in Wisconsin.

The data is specifically limited to the cost burden on CF operations which would be eliminated by the permit sought by my Company from the Wisconsin Department of Transportation, by application dated April 10, 1975. The application is attached as a part of Exhibit B to the Complaint.

The cost burden as reflected in the data presented herein relates solely to Wisconsin's prohibition of Twin Trailer combinations on Interstate Highways 90 and 94 (and alternate Interstate 894) between the Wisconsin-Illinois boundary and the Wisconsin-Minnesota boundary [over routes between (a) South Beloit, Illinois and Lakeland, Minnesota, and (b) Zion, Illinois and Lakeland, Minnesota]. The data relates solely to

movement of interstate freight through Wisconsin and to or from CF's terminal locations at Milwaukee and Madison.

* * *

[3]

THE COST BURDEN: The cost burden, as described herein, is calculated on the basis of operations for the year ending June 30, 1975. Wherever possible, data for the year July, 1974, through June, 1975, was utilized. Where data for the full year ending June 30, 1975, was not available, the data was annualized on the basis of operations for the six month period ending June 30, 1975. The details of the data base are identified in the attached schedules.

These costs are incurred by CF on operations solely within the scope of the denied Twin Trailer permit. However, the entire cost burden, even within this limited scope, cannot be completely quantified or entirely identified.

The identifiable cost burden to CF can be summarized as follows:

TABLE I

A.	The cost burden of dividing Twin Trailer combinations for operations to, from, and through Wisconsin.	\$ 389,898
B.	The cost burden of operating 55-foot tractor semi-trailer combinations ["Semi(s)"] in lieu of Twin Trailer combinations for Madison and Milwaukee freight.	\$ 81,440
C.	The cost burden of operating Semis in lieu of Twin Trailer combinations for Minneapolis terminal freight.	\$ 244,587
D.	The cost burden of operating Twin Trailer over longer mileage routes around Wisconsin rather than over shorter mileage routes through Wisconsin, on Pacific Northwest and Montana freight.	\$1,334,876
	PROJECTED ANNUAL COST BURDEN	<u>\$2,050,081</u>

ITEM A:

Schedule REW-A, attached hereto, describes the sources and methods of calculation of the cost burden reflected in Item A above. This element of the estimated cost burden is \$389,898, annually. This amount is the added cost of dividing Twin Trailer combinations into single trailer units, in actual operations during the year ending June 30, 1974, for movements over interstate highways (1) between an Illinois staging area and CF's Milwaukee terminal; (2) between an Illinois staging area and CF's Madison terminal; and (3) between CF's Milwaukee and Minneapolis terminals. These additional costs also include costs of moving Twin Trailers as single trailer units between the Illinois staging area and CF's Milwaukee terminal in connection with movement of freight to and [5]

from other CF Wisconsin terminals. The Beloit and Zion, Illinois, staging areas exist for the sole purpose of dividing Twin Trailer combinations to comply with Wisconsin regulations. At the Minnesota-Wisconsin boundary, CF's Minneapolis terminal is used for this purpose.

Each step of my calculation of this cost is reflected in Schedule REW-A. Footnotes to Schedule REW-A specifically identify the source of data and means of calculation.

The miles of operation of Twin Trailers as single units used in Schedule REW-A were taken from CF payroll records. Each driver's time cards show each point-to-point dispatch leg the driver makes and the type of equipment operated. As an example, a driver dispatched from Akron, Ohio, to Milwaukee with a set of Twin Trailers will produce a time card which shows Akron, Ohio as the origin, the Zion, Illinois staging area as the destination, and equipment used as Twin Trailers. The time card will then reflect a movement from the Illinois staging area to Milwaukee with one of the Twin Trailer units. Another driver's time card will show a movement from the Illinois staging area to the Milwaukee terminal with the second Twin Trailer.

The time cards will show just the reverse for a Milwaukee to Akron trailer, or any other Wisconsin origin and/or destination, moving to or from Twin Trailer states. By comparison, a driver dispatched from Akron to Milwaukee, in a Semi will produce a time card showing Akron, as the origin and Milwaukee as the destination, with no Illinois staging area data.

These time cards are processed weekly and are summarized monthly, in four or five week periods as appropriate, to produce a variety of

[6]

"monthly" reports. One of these reports is entitled "Route Usage Report." This report shows the number of miles and trips operated for each route on a point-to-point basis. From this monthly report, I was able to determine the number of trips and miles of operation of Twin Trailers as single units (1) between Illinois staging areas, on the one hand, and on the other, Milwaukee or Madison, and (2) between Minneapolis and Milwaukee.

CF's regular monthly reports also include a report entitled the "Linehaul Cost Statement." This statement shows current month and year-to-date expenses showing costs per mile for various linehaul categories such as tractor maintenance, trailer maintenance, driver's wages, fuel and oil, equipment insurance linehaul equipment depreciation, and other items. From this statement, I was able to determine the portion of linehaul cost per mile which varies with the number of miles operated. This calculation is referred to as "Variable Costs Per Mile." Multiplying the variable costs per mile by the number of miles of operation which would be avoided by operating Twin Trailer combinations in Wisconsin between the Illinois staging areas and Milwaukee or Madison or between Minneapolis and Milwaukee produced the

dollar amount of the net cost burden of Wisconsin's disallowance of this operation. This portion of the cost burden amounted to \$232,752 for the year ending June 30, 1975, to which was added other non-mileage based cost factors, reflected on Schedule REW-A, to reflect the total burden of \$389,898, as the result of dividing Twin Trailer combinations moving within the scope of the permit application at Wisconsin borders.

ITEM B:

Schedule REW-B, attached hereto, describes the sources and methods of calculation of the cost burden reflected in Item B above. This

[7]

element of the estimated cost burden is \$81,440, annually. This amount is the added cost of operating Semis [utilizing 45-foot trailers] in lieu of Twin Trailer combinations for Madison and Milwaukee freight.

Each step of my calculation of this cost is reflected in Schedule REW-B. Footnotes to Schedule REW-B specifically identify the source of data and means of calculation.

The calculations of Item B are based upon a comparison of total variable costs for operating Semis versus Twin Trailer combinations on traffic which presently moves in Semis to or from Milwaukee, or Madison.

This data is derived from CF's on-line equipment control system, from which I was able to select and produce a report entitled, "Movement Continuity by Location." This report reflects the number of Semis that are loaded to or from the Milwaukee and Madison terminals by terminal origin and destination. Using the selected origin/destination sets and miles of operation as reflected on the "Route Usage Report," I was able to determine the number of miles operated by Semis, to and from the Milwaukee and Madison terminals. I, then, calculated the cost burden by use of the Variable Linehaul Cost Per Mile as reflected on Schedule REW-B.

The calculation of Item B excluded freight which would clearly continue to move in Semis even if Twin Trailers were permitted on interstate highways in Wisconsin, within the scope of CF's application of April 10, 1975. However, general commodity freight is most suitable to transportation in Twin Trailers. Where Twin Trailers are permitted,

[8]

not less than 89 percent, and up to 100 percent of CF's freight moves in Twin Trailer combinations. Based upon CF's over-all operations, I have concluded that not more than 10% of CF vehicle

miles occur in Semis where Twin Trailers are permitted. The calculations in Schedules REW-B and REW-C reasonably account for this factor and are not significantly distorted by it.

If CF were permitted to operate Twin Trailer combinations into and out of Milwaukee and Madison in lieu of Semis, it would operate fewer schedules to move the same quantity of freight. To demonstrate this cost burden, I have compared the average weight per trailer in Twin Trailer combinations, and Semis and by a series of calculations have converted Semi miles operated into and out of Milwaukee and Madison to operation of Twin Trailer combinations. This calculation produces a representative estimate of the number of added and unnecessary miles CF operates by reason of the forced use of Semis in lieu of Twin Trailer combinations on Milwaukee and Madison freight both within and beyond Wisconsin's borders. As indicated above, by applying the Variable Line Haul Cost Per Mile to this mileage factor, I calculated this element of the cost burden to be \$81,440 annually.

ITEM C:

Schedule REW-C, attached hereto, describes the sources and methods of calculation of the cost burden reflected in Item C above. This element of

estimated cost burden is \$244,587, annually. This amount is the added cost of operating Semis in lieu of Twin Trailers for Minneapolis terminal freight both within and beyond Wisconsin's borders. The costs reflected in this schedule are calculated in the same manner as those

[9]

indicated in Item B and Schedule REW-B. In this instance, however, the base is Minneapolis origin and destination trailers which must be moved through Wisconsin. The selection is based upon the "Movement Continuity by Location" report, as described in Schedule REW-B.

ITEM D:

Schedule REW-D, attached hereto, describes the sources and methods of calculation of the cost burden reflected in Item D above. This element of the estimated cost burden is \$1,334,876, annually. This amount is the cost burden of operating Twin Trailers on longer mileage routes around Wisconsin rather than on shorter mileage routes through Wisconsin on Pacific Northwest and Montana freight.

Each step of the calculation of this cost is reflected in Schedule REW-D. Footnotes to Schedule REW-D specifically identify the source of data and means of calculation.

To calculate the cost for this Item, I reviewed CF's present linehaul operation for movement of freight from CF terminals in its Eastern area, Michigan (Division 17) area, Chicago area, and Milwaukee area, to CF's Pacific Northwest (Oregon and Washington) and Montana area terminals.

* * *

[10]

To avoid Wisconsin's Twin Trailer ban, relays presently move freight from Eastern points to the Pacific Northwest points, and return, via Cameron, Missouri, and North Platte, Nebraska, even though relays through Wisconsin via interstate highways would save varying but substantial numbers of miles depending upon the origin and the destination.

Tonnage to the selected Western points from the selected Eastern points, shown in Schedule REW-D, over balances the tonnage moving in the opposite direction (easterly direction) by 1.40 to 1. Accordingly, the tonnage moving in the westerly direction dictates the number of schedules moving in both directions. Hence, tonnage moving in the westerly direction was used as the basis for determining the added cost of operating Twin Trailer routes around rather than through Wisconsin.

The estimate of this burden was developed from the following sources:

1. Point-To-Point Tonnage and Revenue Report.
2. Outbound Laden Load Factor for Eastern area, Michigan (Division 17) area, Chicago area, and Milwaukee area are Terminals from the Terminal Income and Expense Statement.
3. Miles of actual operation developed from the Route Usage Report.

[11]

4. Cost per mile from the Line-Haul Cost Report, based upon costs for the year ending June 30, 1975.

The Point-to-Point Tonnage and Revenue Report is a recap of CF freight bills on a monthly and year-to-date basis. This report summarizes freight bills by each origin and destination showing the number of shipments, weight, and revenue for each traffic lane. Summarizing the point-to-point weight moving from the selected Eastern points to the selected Western points, I determined the total freight that would be transported through Wisconsin, if Twin Trailer combinations were permitted on interstate highways in Wisconsin.

Having derived the tonnage moving in the westerly direction, I then calculated the number of Twin Trailer schedules required to move the

tonnage. I divided the weight to be moved by the appropriate outbound load factor for each terminal area (the Eastern area, Michigan area, Chicago, Milwaukee, etc.). For example, the weight to be moved from the Eastern area to the Pacific Northwest was divided by the Eastern area load factor to determine the number of schedules necessary to move that weight. In a similar manner, Michigan weight moving to the selected destination area was divided by the Michigan load factor to determine the number of Twin Trailer schedules necessary to move that freight.

To determine the mileage savings by operating through Wisconsin, I compared the miles developed from the Route Usage Report, for routing via Cameron and North Platte for the selected operations, to the miles for routing via Wisconsin. I selected certain point-to-point combina-

[12]

tions to represent the miles involved via the different routes. The destination points selected were Portland, Seattle, and Billings. The origin points selected were Akron for the Eastern area, Chicago for the Michigan area, and Chicago and Milwaukee for their own areas. These point-to-point sets represent the mainline relay points over which the freight presently moves and over which

it would move if routed via Wisconsin. Based on these point-to-point sets, I determined the mileage savings which would be derived from operating through Wisconsin for each trip. I multiplied this product by the number of schedules required to move the actual freight involved, which produced a figure representing the total mileage savings which would be realized via Wisconsin.

The added cost of the longer routes were then determined by multiplying the "Variable Line-Haul Cost Per Mile" by the total mileage savings. The cost burden, thus estimated, was then doubled, since CF operates by relays. As indicated, due to balance, the schedules operated in the westerly direction determine the number of schedules operated in the easterly direction.

The total cost burden for operating the longer mileage routes was thereby calculated to amount to \$1,334,876, annually, based upon annualized operations for the year ending June 30, 1975.

COMPARATIVE INITIAL COST OF TWIN TRAILER UNITS: Set forth in Table II below is a comparison of unit costs for a Twin Trailer combination and a Semi combination for the years 1972 and 1975, showing that the effective initial investment in Twin Trailer equipment is similar to or less than that in Semi equipment.

[13]

In 1975, for example, the original investment cost for a Twin Trailer combination is only 0.48% more than that for a Semi combination. Yet, the capacity of a Twin Trailer over a Semi combination, as reflected on Schedules REW-B and REW-C, is in excess of 10%, by average weight of loading.

* * *

TWO MILLION DOLLARS IS THE MINIMUM BURDEN: The cost of providing service does not dictate all operational practices. Service required by the public, such as "overnight" and other "guaranteed" time in-transit factors, may occasion operations which are not the most efficient in terms of cost.

The operations, on which cost burden is identified as reflected in Items A and D, i.e., the cost burden of operating Twin Trailers as single units and the cost burden of operating longer mileage routes on Pacific Northwest and Montana freight, are the most efficient under the

[14]

circumstances. The burden reflected in Items A and D is, therefore, a true measure of the minimum cost burden of the Wisconsin ban.

The cost burden reflected in Items B and C, experienced as a result of using Semis in lieu of Twin Trailer combinations, is wholly the result of the Wisconsin [sic] ban. In my experience, the use of Semis as reflected in Items B and C represents CF's best operational judgment as to choice of equipment at the time of movement, under the conditions dictated by the Wisconsin ban. These items represent a true measure of the cost burden of Wisconsin's denial of Twin Trailer permits for operations on interstate highways in Wisconsin.

The cost burden quantified in Items A through D is understated, if consideration is given to decline in the economy during the year ending June 30, 1975. Schedule REW-E demonstrates the decline of tonnage transported by CF comparing the first half operations 1974 to 1975. For the factors cited in Schedule REW-E, the decline was between 11 and 28%. Since June 30, 1975, CF's tonnage experience has begun to improve with an improvement in the economy, although it remains below 1974 tonnage. The period of time utilized in the Table I, Projected Annual Cost Burden, accordingly, tends to understate the burden compared to a period of economic growth or stability. The time period utilized herein for calculating the burden, included costs through

June 30, 1975, only. This understates the real cost burden resulting from known increases in costs of operation since that date. For example, labor cost increases, effective under the Teamster contract on July 1, 1975, have increased the burden of the Wisconsin ban.

[15]

CF operates under the same rates approved by the Interstate Commerce Commission and other regulatory agencies having jurisdiction, as do all other common carriers of general commodities having comparable operations. Schedule REW-F, attached hereto, compares the general freight revenue, pre-tax profit, and operating ratio of CF to the average in its industry. The operating ratio is the ratio of operating expenses to revenues. For the five years ending with 1974, CF's average operating ratio was 92.4, while the industry average for the same period was 94.5. In my opinion, the CF's lower operating ratio reflects its cost and service conscious management, which is responsible for managerial decisions which have minimized the cost burden set forth in Items A through D, resulting from Wisconsin's ban on Twin Trailers on interstate highways in Wisconsin. The operations, therefore, reflected in Items A through D, demonstrate a burden, minimized to the fullest extent possible.

/s/ R.E. Wrightson

[Jurat]

* * *

[Footnotes Omitted in Printing]

[Schedules Omitted in Printing]

* * * * *

SWORN TESTIMONY OF JOHN A. EBELING

Filed October 20, 1975

[Caption Omitted in Printing]

* * *

[3]

I.

IDENTIFICATION: My name is John A. Ebeling. I am Vice President, Central Area, Consolidated Freightways Corporation of Delaware ("CF"). My business address is P.O. Box 5138, Chicago, Illinois 60680.

I am presently responsible for forty-seven terminals operated by CF in the Central United States, extending from Canada on the north, to Kentucky on the south, Omaha on the west, and Ohio on the east.

* * *

[4]

IDENTIFICATION OF CONSOLIDATED FREIGHTWAYS OF DELAWARE: CF is a Delaware corporation with its principal place of business at 175 Linfield Drive, Meno Park, California 94025.

CF is a common carrier of general commodities operating under Certificate of Public Convenience and Necessity No. MC-42487, issued by the Interstate Commerce Commission and registered with the Wisconsin Public Service Commission under No. OS-730. This Certificate authorizes operations in forty-two states and Canada.

* * *

The average weight per shipment on CF's system in 1974 was 992 pounds. In the first half of 1975, the system average weight per shipment was 975 pounds. On freight moving in interstate commerce to and from Wisconsin, the average weight per shipment in 1974 was 984 pounds. In the first half of 1975, the average weight per shipment was 957 pounds.

As a common motor carrier, CF provides service between such points as the Detroit Commercial Zone and the Seattle Commercial Zone, as well

[5]

as zones and points in between, via routes traversing the state of Wisconsin via Interstates 94 (and alternate Interstate 894) and 90.

* * *

Twin Trailers are permitted on the entire length of Interstate 94 and connecting routes between Detroit and Seattle, with the exception of that segment of Interstate 94 in the state of Wisconsin. Twin Trailers are similarly barred on Interstate 90 in Wisconsin. But for Wisconsin's Twin Trailer ban, Twin Trailer general commodity through-service would otherwise be available between Detroit and Seattle, Chicago and Minneapolis, and other points in between.

In terms of economy and quality of service, Twin Trailers have proved to be the optimum type of equipment for carriage of less-than-truckload ("LTL") general commodities.

[6]

COPING WITH THE WISCONSIN BAN ON TWIN TRAILERS: The Wisconsin Twin Trailer ban plays havoc with CF's interstate and transcontinental operations and forces CF to choose among limited alternatives, none of which is desirable or satisfactory to the public or to CF.

These alternatives, all of which are in use on a daily basis, are:

1. Dividing Twin Trailer combinations into single units at Minneapolis and Illinois staging areas for operations to, from, and through Wisconsin.
2. Operating 55-foot tractor-trailer combinations ["Semi(s)"] in lieu of Twin Trailer combinations on through schedules in Wisconsin and beyond Wisconsin.
3. Operating Twin Trailer combinations over circuitous routes around Wisconsin.

Division of Twin Trailer Combinations: For freight moving to and from Wisconsin, CF divides Twin Trailer combinations to operate as single units on highways in Wisconsin, in a shuttle service between Wisconsin boundaries and CF's Wisconsin terminals. Outside of Wisconsin, the units are operated in combination.

Twin Trailer combinations carrying freight inbound to Wisconsin are divided at CF's Minneapolis terminal and at staging areas at South Beloit, Illinois, and Zion, Illinois. The two Illinois' staging areas are maintained solely for this purpose and are entirely the result of the Wisconsin Twin Trailer ban. Operations at the Zion location were originally conducted at CF's Waukegan terminal.

The Zion location, however, closer to the Wisconsin border, was established in 1969. The South Beloit location was established in 1973. Each facility consists of a graded parking lot located as close to the Wisconsin state line as possible. CF parks equipment (dollies and trailers) utilized in Twin Trailer operations at these locations.

[7]

As an example, a Twin Trailer combination inbound to Wisconsin is routed to one of the staging areas. The driver unhooks and drops the rear trailer and dolly. In some instances, if the rear trailer is urgently needed, he will unhook and drop both trailers and dolly, and, then, re-hook the rear trailer for immediate movement to the Wisconsin location.

In most cases the driver performs this work alone and will take from fifteen minutes to one hour to complete the job. After unhooking is accomplished, he will then proceed with one of the two trailers to Milwaukee from Zion, or to Madison from South Beloit. On his arrival at the Wisconsin terminal, the driver will deliver the bills of lading for both Twin Trailer units to the supervisor of line-haul operations and inform the supervisor which trailer has been left at the Illinois staging area. The remaining trailer will then be brought to

the terminal by another over-the-road driver assigned to the specific job of shuttling trailers between the Wisconsin terminal and the staging area.

Two drivers must, therefore, be utilized for each Twin Trailer schedule which is shuttled. One driver does the shuttling, while the other driver takes the schedule on to the next relay point. Most drivers who shuttle trailers to and from the staging areas will make from two to four round trips in a normal tour of duty. For example, each round trip between Milwaukee and Zion is 70 miles and takes approximately 1-1/2 hours driving time, in addition to any time spent on hooking and re-hooking trailers and on vehicle safety checks. In a typical month on the Milwaukee-Zion shuttle, drivers will operate over 14,000 miles to keep the staging area operation functioning. Drivers from Menasha, Green Bay, and Sheboygan terminals will also utilize the staging area.

[8]

Instead of bringing outbound Twin Trailers as singles from their terminals into Milwaukee, they will take them directly into the staging area. This permits Milwaukee to dispatch line-haul tractors and single Twin Trailers to match trailers at Zion for over-the-road movement in combination without

incurring an additional shuttle for the purpose of matching. Had the requested permit been issued, Twin Trailer combinations would originate and terminate at the Madison and Milwaukee terminals and the Illinois staging areas would be closed.

Operating Semis in Lieu of Twin Trailer Combinations: In addition to dividing Twin Trailer combinations at Wisconsin borders, CF's operational judgment, in many instances, requires that Semis be used for an entire schedule both in Wisconsin and beyond. In other words, the Wisconsin Twin Trailer ban forces CF to operate Semis on highways in other states where Twin Trailer combinations are permitted, as well as on highways in Wisconsin. This is particularly true, for example, for freight moving between terminals east and south of Minneapolis, on the one hand, and CF's Minneapolis, Fargo, Owatonna, and Winnipeg terminals, on the other hand. All of this freight must traverse Wisconsin.

The managerial judgment to utilize Semis results in the additional encumbrance of equipment incompatibility. Tractors used in Twin Trailer combinations are single axle, while tractors used in Semi combinations are tandem axle. Tandem axle tractors are not used to move Twin Trailer combinations. The result of utilizing Semis for

Minneapolis terminal operations, for example, is that certain power equipment must be matched for return movement with Semi trailers rather than move in continuous operation in CF's line-haul relay system, which utilizes Twin Trailer

[9]

combinations, as more fully described below.

To the extent that the Wisconsin ban forces CF to utilize Semis in lieu of Twin Trailer combinations, it imposes additional loading and unloading time, additional time and costs for handling pick-up and delivery, additional break-bulk or re-shipment handlings, and additional opportunity and incidence of freight loss and damage, as more fully described below.

Use of Semis for Minneapolis terminal freight is required in CF's best operational judgment, by operating costs and service factors. The other alternatives are transfer of freight between Semis and Twin Trailers at the Wisconsin border, or movement of freight in Twin Trailers in shuttle operations through Wisconsin. Transfer of freight was ruled out due to excessive operational costs, delays in-transit, potential damage, and other factors which would prejudice the adequacy of service. A shuttle operation for Minneapolis terminal freight similar to that operated on freight

originating and terminating at Wisconsin terminals was ruled out due to operational costs. Where CF uses Semis on Minneapolis terminal freight, it is the best choice under the circumstances.

Circuitous Routes Around Wisconsin: For freight moving between eastern areas and the Pacific Northwest, operations presently are conducted via Cameron, Missouri, and North Platte, Nebraska. The most direct routing of this transcontinental traffic would be over Interstate Highways in Wisconsin.

The longer routing is dictated by the Wisconsin ban on Twin Trailer combinations. Forced to make a management choice among (1) movement of transcontinental freight in Twin Trailer combinations east and west of

[10]

Wisconsin, and in Twin Trailers as single units on Interstate Highways in Wisconsin, (2) movement of transcontinental freight between these territories in Semis, and (3) movement of transcontinental freight in Twin Trailer combinations via Cameron and North Platte, CF determined that the least burdensome choice, to minimize cost and to maintain service efficiency, is to operate via the longer routing.

The burden of this routing is additional consumption of fuel and increases in other line-haul costs which vary with miles operated, including maintenance and repair d [sic] costs, driver wages, health and welfare benefits, and similar costs. Where these costs can be quantified, they have been quantified in the sworn testimony of R.E. Wrightson. Time consumed in operating over the additional miles, delaying shipments in-transit, and diminishing quality of service to the shipping public, cannot be quantified but is an equally real burden.

II.

NATURE OF "GENERAL COMMODITY" OPERATIONS: CF is obligated to provide service, under published rates, to all who call for service, without discrimination as to service or rates; without discrimination as to size of shipment within CF's commodity description; and without undue delay in either commencing or completing service.

As a general commodity carrier, CF transports the broadest range of freight, from air conditioners to castings, from baby bottles to toothpaste, from machine parts to typewriters, from plastic pellets to washing machines. A full listing of commodities transported by CF, consisting of some 800 pages, is contained in National Motor Freight Classification

[11]

Tariff ICC-NMF 100B, which is published by the National Motor Freight Traffic Association, Inc., and filed with the Interstate Commission.

CF serves all types of shippers, including large and small manufacturers, retail merchants, hospitals, government offices, business institutions, and private residences.

CF serves every type of community from congested cities and their suburbs, to the smallest rural community.

CF TRANSPORTS SMALL SHIPMENTS: The type of public which is served by CF is reflected in CF's shipment statistics. During the year 1974, CF handled 7,071,544 shipments, for a total weight of 7,077,798,877 pounds. These operating statistics, by weight break, for the entire year 1974 and for the first half of 1975, are reflected as follows:

TABLE I 1974 Operating Statistics					316
Weight Breaks	Shipments	%	Tonnage	%	
0 to 199 lbs.	3,156,108	44.6	329,339,657	4.7	
200 to 499 lbs.	1,824,073	25.8	572,245,180	8.1	
500 to 999 lbs.	909,030	12.9	629,819,799	8.9	
1,000 to 9,999 lbs.	1,065,498	15.1	2,820,242,381	39.8	
10,000 to 19,999 lbs.	62,070	.9	849,306,228	12.0	
20,000 to 29,999 lbs.	23,586	.3	565,369,079	8.0	
30,000 lbs. and over	31,179	.4	1,311,476,553	18.5	
Total	7,071,544	100.00	7,017,798,877	100.00	

1975 First Half Operating Statistics					317
Weight Breaks	Shipments	%	Tonnage	%	
0 to 199 lbs.	1,412,501	45.3	146,920,079	4.8	
200 to 499 lbs.	802,714	25.7	251,184,448	8.3	
500 to 999 lbs.	396,041	12.7	273,902,887	9.0	
1,000 to 9,999 lbs.	456,923	14.7	1,207,866,957	39.7	
10,000 to 19,999 lbs.	26,148	.8	357,473,227	11.8	
20,000 to 29,999 lbs.	10,299	.3	245,525,625	8.1	
30,000 lbs. and over	13,174	.4	556,882,730	18.3	
Total	3,117,730	100.00	3,039,755,953	100.00	

[12]

In 1974, 98.4% of CF's shipments by number and 61.5% by weight were less than 10,000 pounds each. In the first half of 1975, 98.4% of CF's shipments by number and 61.8% by weight were less than 10,000 pounds each. The large proportion of small shipments demonstrates the basic problem and the basic goal of CF's operation.

Successful operation may be defined in various ways. In terms of CF's obligation to the public as a common carrier, successful operation is the provision of timely service at a reasonable cost. To meet this goal, CF must consolidate numbers of small shipments from various origin areas, dispatch vehicles over-the-road frequently, and distribute shipments to various destination territories. This service goal requires minimizing the number of handlings of each shipment, avoiding loss and damage, dispatching over-the-road trailers as fully loaded as possible, and maximizing ability of city drivers on pick-up and delivery service to route themselves and be routed over the least distance possible.

CF's operating experience on shipments moving to and from Wisconsin is consistent with its over-all system operation. The traffic is reflected as follows:

TABLE II
1974 Operating Statistics

Weight Breaks	To Wisconsin		From Wisconsin	
	Shipments	Tonnage	Shipments	Tonnage
0 to 199 lbs.	122,420	13,430,285	147,494	16,374,180
200 to 499 lbs.	74,475	23,261,467	101,994	32,246,734
500 to 999 lbs.	36,199	25,045,168	52,5491[sic]	36,437,807
1,000 to 9,999 lbs.	41,366	109,557,520	61,405	159,749,972
10,000 to 19,999 lbs.	2,307	31,235,001	3,294	44,915,980
20,000 to 29,999 lbs.	822	20,020,850	1,089	26,118,133
30,000 lbs. and over	1,576	68,154,729	800	31,012,645
Total	279,165	290,705,020	368,535	346,855,451

[13]

1975 First Half Operating Statistics

Weight Breaks	To Wisconsin		From Wisconsin	
	Shipments	Tonnage	Shipments	Tonnage
0 to 199 lbs.	51,974	5,609,645	64,276	7,153,273
200 to 499 lbs.	30,200	9,405,367	44,976	14,152,061
500 to 999 lbs.	14,196	9,780,678	22,727	15,765,453
1,000 to 9,999 lbs.	16,475	43,697,048	26,968	69,778,949
10,000 to 19,999 lbs.	944	12,845,052	1,346	18,342,621
20,000 to 29,999 lbs.	331	8,070,694	466	11,331,512
30,000 lbs. and over	567	24,347,830	356	13,876,139
Total	114,687	113,756,314	161,114	150,400,008

In 1974, by number of shipments, 98.3% of those destined to Wisconsin points and 98.6% of those originated at Wisconsin points weighed under 10,000 pounds. For the first half of 1975, by number of shipments, 98.4% of those destined to Wisconsin points and 98.7% of those originated at Wisconsin points were under 10,000 pounds. CF's experience on traffic originating and terminating in Wisconsin is comparable to the experience throughout its system.

[14]

Traffic originated by CF at Wisconsin may be destined to any point on CF's system or be moved in interline or intermodal service to any point in the United States or port of export. The same is true of any shipment originated or terminated by CF, anywhere.

CF holds itself out to provide joint-line service with other common carriers and provides intermodal connections with rail, water and air carriers. CF participates in joint rates applying on interline connections. The following table reflects percentage of shipments and tonnages, direct and interline, handled by CF during the year 1974:

Table III
1974
[in percent]

	Shipments	Tonnage
CF originated and delivered	64.3	70.8
CF originated and gave to another carrier	18.9	14.4
Another carrier originated and gave to CF	14.8	13.0
Another carrier originated and gave to CF which gave to another carrier	2.0	1.8

323

323

SUITABILITY AND STANDARD USE OF TWIN TRAILERS FOR GENERAL COMMODITY OPERATIONS: At 12 to 15 pounds per cubic foot, general commodity traffic is "low density." General commodity carriers can, therefore utilize all of the cubic capacity available in the equipment they operate.

The loaded weight of general commodity freight on both Semi and Twin Trailer combinations, generally falls well below statutory weight tolerances. Wisconsin's gross weight tolerance is 72,320 pounds. [sic] This permits weight payloads of as much as 42 to 44 thousand pounds. However, [15]

as a general commodity carrier, CF's average loading of Semis is 33,112 pounds compared to its average loading of Twin Trailer combinations at 36,630 pounds, based on Madison and Milwaukee Terminal weights per trailer, January through June, 1975.

Transportation of general commodities requires the maximum ability to consolidate small shipments for over-the-road movement, as expeditiously as possible. Public expectations of time-in-transit require overnight service on distances up to 300 miles, second-day service between 300 and 600 miles, third-day service between 600 and 1,000

miles, and fourth-day service over 1,000 miles. This is the standard for general commodity service. The ability to fill-up trailers for frequent dispatch over-the-road and the flexibility to combine trailers dispatched from different terminals are needs peculiar to the transportation of general commodities. Twin Trailers fulfill these needs.

Twin Trailer combinations are the industry standard for transcontinental common motor carriers of general commodities. Such carriers include Navajo Freight Lines, Inc.; IML Freight, Inc.; Pacific Intermountain Express Co.; Transcon Line, Inc.; I.C.X.; Ringsby-United, Inc.; and Yellow Freight System, Inc. By way of example, utilizing 1971 statistics, CF operated 229,934,172 miles, of which 70.9% were Twin Trailer miles. IML Freight, Inc., operated 74,727,668 miles, of which 56.1% were Twin Trailer miles. Pacific Intermountain Express Co., operated 112,557,112 miles of which 86.2% were Twin Trailer miles. Twin Trailer miles operated by CF continued to increase as a percentage of total miles operated, amounting to more than 89% of total miles in 1974, and as much as 100% of total miles in some territories.

[16]

CF's LINE-HAUL RELAY OPERATION: Like other general commodity carriers, CF provides service in terminal-to-terminal operations.

CF's movement of line-haul schedules (vehicle combinations) between terminals is operated as a relay system. CF has established a main line relay operation between its major terminals throughout the country and a regional relay operation for the smaller terminals to feed freight into the main line relay. The main line operation can be analogized to two conveyor belts in continuous movement in opposite directions.

In this system a driver will move a schedule from a terminal to a relay point. Then, another driver will move it to the next relay point, and on, until the schedule arrives at its ultimate destination. When a driver arrives at a relay point, he will move another schedule back to his origin point, after taking any required or needed rest. In other words, for every schedule that is dispatched from a given point, a schedule must be matched with it in the return direction to maintain the continuous movement of freight, equipment, and drivers.

All relay runs are well under the established maximum running time, under rules of the U. S. Department of Transportation. They can easily be accomplished within the driver's allotted "on-duty" time at 55 miles per hour, including his completion of prior and subsequent vehicle inspection.

CF's Milwaukee terminal serves as a key part of the relay system. It is the responsibility of this terminal to insure that freight picked-up in outlying Wisconsin terminals destined for the eastern, central, and southern parts of the United States is relayed on an expeditious [17]

basis. Freight moving between Wisconsin and the northwestern part of the United States is often relayed over the Minneapolis gateway. Employees of the Milwaukee and Minneapolis terminals play an integral part in establishing the timing of the relay operation. The timing of the operation provides CF an opportunity for maximum control of compliance with safety regulations. To move the bulk of Milwaukee terminal freight in anything but Twin Trailers would disrupt CF's relay operation with equipment incompatibility, driver coordination, and freight handling problems.

SERVICE CONTROL CENTERS OR TERMINAL OPERATIONS: General commodity service is provided through a network of 194 terminals in forty-two states. The probability of each terminal's generating enough traffic destined to each other terminal to allow daily "direct" dispatch of a trailer is unlikely. Accordingly, the object in handling general commodity shipments is to

efficiently consolidate great numbers of small shipments for line-haul movements, minimizing intermediate handlings.

These terminals or centers are "grouped" geographically with the largest terminal in each group used as a re-ship or break-bulk location and designated as the "group service center." In addition to providing pick-up and delivery service in their respective commercial zones and service areas, the "group service centers" provide consolidation of shipments on both inbound and outbound traffic for all satellite terminals in the particular area. The group service centers are the main connecting points on the CF main line relay operation. CF operates twenty-two group service centers, each of which has the capability of forwarding a

[18]

trailer to each other center on a daily basis. The 172 satellite terminals do not have this capability.

Each of CF's service control centers has office, dock, and, at some locations, garage facilities. The great majority are owned by CF. Each center has a staff of employees including a manager, office and dock personnel, city pick-up and delivery drivers, and, at some locations, over-the-road drivers and mechanics. Service control

centers are linked by an input/ output device linking our Control Computer System via our communication system and a long-line telephone network, in addition to conventional telephone service.

Service control centers serve areas much larger than the cities in which they are located. For example, the Fargo, North Dakota, center provided daily pick-up and delivery service at such North Dakota points as:

<u>TOWN</u>	<u>1970 POPULATION</u>
Adams	264
Belfield	1,130
Carson	466
Edmore	398
Fargo	53,365
Jamestown	15,385
Lisbon	2,090
Max	301
Napoleon	1,036
St. Thomas	508
Zap	271

Some of the service control centers are larger than the Fargo center, and some are smaller. The service area of the Fargo terminal and the size and type of the community served from Fargo are typical of the size and type of service area and communities served by CF throughout its system.

[19]

CF COST AND SERVICE ORIENTATION:

CF's cost of service does not dictate all operational practices. Service required by the shipping public, such as overnight or other "guaranteed" time in-transit may occasion operations which are not the most efficient in terms of cost. CF's management closely monitors cost and service requirements on a continuing basis.

Twin Trailers provide significant advantages in transporting general commodities. The cost burden of operating Twin Trailers as single units in Wisconsin and the cost burden of operating Twin Trailer combinations over longer mileages, on transcontinental routes around Wisconsin, represent the minimum burden of the Wisconsin ban on Twin Trailer combinations. In CF's best judgment, these operations are the most cost efficient and the most service efficient available under the burden of Wisconsin's ban. The cost burden of using Semis in lieu of Twin Trailer combinations represents the same type of judgment under differing operational circumstances. For movement of general commodity freight, operating Twin Trailers as single units, operating Semis in lieu of Twin Trailers, and operating Twin Trailers around Wisconsin are absolutely not the most cost

efficient, most service efficient or most energy efficient operations. Operating Twin Trailer combinations on Interstate Highways in Wisconsin would be less costly and more efficient in all respects.

SCOPE OF CF'S OPERATIONS: Attached and incorporated herein, as Exhibit JAE-1, is a map showing CF's authorized routes of operation in forty-two states and the District of Columbia. In general, CF serves all points along its authorized routes and provides interline and interchange

[20]

connections with other common carriers of general commodities to serve points beyond its system, which permits service between virtually all points in the United States.

* * *

CF owns and operates a fleet of some 19,000 units to serve its authorized territory. During the year 1974, CF handled 7,071,544 shipments for a total weight of 7,077,798,877 pounds.

CF'S SAFETY PROGRAM: CF's management of safety begins with driver hiring and extends through every phase of its operations.

* * *

[21]

Physical qualifications and examinations are redone at least every 2 years, and every year after the employee has reached age fifty-five. Driver qualification files are utilized on a regular basis for checking performance and continued adherence to the original standard of employment.

CF drivers are trained to be specifically familiar with all of the equipment they operate. CF maintains standard model equipment throughout its operating system to facilitate complete acquaintance with available equipment by all driving personnel.

* * *

In addition to the inspection prior to movement, each driver must complete, in writing an Equipment Inspection and Condition Report (CF Form 252), after each movement.

* * *

[22]

Safety of operation is also maintained through route planning and scheduling. CF's movement of line-haul schedules (vehicle movements) between terminals is operated in a relay system. The relay

system is used for close control of over-the-road operations and adherence to strict safety standards. Through scheduling under this system, CF maintains close management and control of drivers' time on-duty and assures adherence of operating personnel to the rules of the U. S. Department of Transportation, Bureau of Motor Carrier Safety, and CF's Safety Program.

* * *

CF'S MAINTENANCE PROGRAM:

CF's

maintenance program is safety oriented. CF has systems to assure both routine maintenance and maintenance in response to specific equipment problems.

* * *

[23]

The drivers' Equipment Inspection and Condition Report is utilized to spot specific maintenance problems. These reports are processed daily, with repairs and corrective action taken prior to re-dispatch of the equipment.

All of the maintenance facilities have responsibility for performing preventive maintenance to both local pick-up and delivery equip-

ment and line-haul over-the-road equipment. All line-haul equipment is built to CF's specifications. CF has standardized power plants, running gear, and brake components. Standardization of equipment and component parts has resulted in maintenance personnel having complete knowledge of all equipment operated by CF, as opposed to having to be familiar with numerous models and varieties of equipment.

* * *

[25]

For cost control and response to problem areas, all daily equipment repairs are reported to CF's computer center. From this data, computerized reports are processed for complete evaluation of each vehicle and groups of vehicles. The reports indicate age of equipment, miles run monthly, miles per gallon of fuel, miles per quart of oil, cost of total operation, and cost of operation of various components of the vehicle. All reports are scrutinized to insure maintenance of high mechanical standards on all equipment. CF's preventive maintenance program is guided by these reports to respond to specific maintaining needs and problem areas. The reports also guide CF's equipment and parts purchasing.

III.

TWIN TRAILERS, LOADING AND UNLOADING:

CF and industry experience in loading and unloading trailers of general commodities is that one-man assignments produce the most efficient operation. This is true regardless of the use of fork lift, hand truck, or manual techniques. A single Twin Trailer can be loaded and unloaded in approximately 1/2 the time required for a 45-foot Semi trailer. Two Twin Trailers, approximately fifty-four lineal feet of cargo capacity, can be unloaded in the same time required for one forty-five foot Semi trailer.

In 1974, over 88% of CF's total line-haul trailing fleet consisted of Twin Trailers. The lesser time required for loading and unloading of Twin Trailers reduces the time cycle not only at the time of pick-up and delivery at customers' locations but also at the origin terminal, the destination terminal, and any intermediate points at which freight transfer is necessary.

[26]

* * *

TWIN TRAILERS AND "DIRECT" SERVICE:

Cross-dock handling is the single most costly element in transporting small shipments. Cross-dock handling and consolidation and terminal

operations are the most time consuming elements in transporting small shipments. The most efficient and least costly shipment is one which can be loaded into an over-the-road trailer at the shipper's dock and be delivered to the consignee from the same trailer. Labor and handling costs are held to a minimum as is time-in-transit.

Generally, with the exception of CF's twenty-two group terminals, no one terminal or service center location on CF's system generates sufficient traffic to each other location on the system to allow direct loading of a trailer every day to each location. CF's objective - and that of all other carriers providing general commodity service - is to bulk load small shipments to strategic break-bulk facilities (CF's Group Service Centers), where traffic flow from many terminals can be joined to fill trailers for each destination.

The shipping public demands time in-transit factors nearly equal to the minimum elapsed time which can be accomplished by direct transit from origin to destination under U.S. Department of Transportation,

[27]

Bureau of Motor Carrier Safety, Hours of Service Rules. Shipments cannot be held for trailers to be filled up. CF competes to maintain the volumes of

traffic it handles. These volumes are necessary to provide service on all small shipments.

For example, a large shipper may improve time in-transit factors by consolidating its shipments, each weighting 2,500 pounds or more, on a private trailer or a trailer of an irregular route common carrier for transit over-the-road and distribution from that trailer in a multiple-stop in-transit distribution service. Shipments in the category of 2,500 pounds or more are essential to general commodity carrier operations in order to fill-up trailers for expedient dispatch, to avoid re-ship or break-bulk operations, and to provide expedient time in-transit. Diversion of such shipments increases time in-transit factors on all shipments handled for large and small shippers. Maintenance of adequate time in-transit factors is of great significance to CF's competing for and retaining shipments which large shippers can consolidate for distribution from over-the-road vehicles. Failure to obtain this traffic reduces CF's ratio of the heavier, over 2,500 pound, LTL shipments which are essential to expeditious movement of all small shipments. In comparison to CF's and other general commodity carriers' terminal-to-terminal service, such over-the-road multiple-stop in-transit distribution may accrue substantial partially

loaded vehicle miles, in the process of distribution of the consolidated load.

"Direct" loading and dispatch of trailers from origin area to destination area minimizes time consuming and costly freight handling in-transit and permits CF to maintain satisfactory and competitive time in-transit factors. "Direct" loading is also essential to maintaining

[28]

cost levels which permit CF to compete for and retain traffic which may be diverted to multiple-stop in-transit distribution. Use of Twin Trailers maximizes "direct" loadings.

CF performs continual terminal-to-terminal tonnage analyses to determine average daily tonnage generated from one terminal to any other terminal in its system. From these analyses, CF establishes "direct" loads for origin-destination pair which moves 15,000 pounds per day from any origin location. Such traffic is loaded on a Twin Trailer unit at origin and moves "direct" to the destination terminal without re-handling. Far more of CF's customers, thus, receive "direct" loading service through use of Twin Trailer units than could possibly be accomplished utilizing Semis. If Semi trailer units, only, were utilized, the threshold factor for "direct" loading would be not

less than 30,000 pounds per day for each origin-destination pair.

Where sufficient volume exists in an origin city to "direct" load a Twin Trailer to a destination city, cross-dock handling is avoided at intermediate re-shipment or break-bulk locations and a direct through service is provided. If an origin city is able to generate two or three shipments amounting to 20,000 pounds to a particular destination city, it is possible to avoid not only intermediate cross dock handlings but also origin and destination terminal handlings. For such a movement, handling would occur only at the shippers' docks at the origin and at the consignees' docks at destination.

TWIN TRAILERS AND FREIGHT LOSS AND DAMAGE: Use of Twin Trailers reduces freight loss and damage. Loss and damage occurs in all freight transportation. Monetary cost is only part of the burden of loss and

[29]

damage of shipments. The delay in procuring replacement shipments can cause costs and burdens far greater than the actual value of the shipment. For example, loss or damage to a shipment, which is to be utilized as ingredient material on specific production lines can result in costly line change-

over or shut-down, while the consignee awaits the replacement shipment.

The cardinal principle of loss and damage management in the transportation industry is that avoidance of handling avoids loss and damage. The greater the number of freight handlings, the greater the exposure to loss and damage. Significant decreases in handling will drastically reduce claims.

The ideal shipment, of course, is loaded into an over-the-road trailer at the shipper's dock and is delivered to the consignee from the same trailer. Although utilization of Twin Trailers increases the ratio of such shipments, the vast majority of CF's traffic is in small shipments, which certainly are not all susceptible to such loading.

Small shipments require some handling in order to be consolidated for over-the-road movement at the origin and destination terminal and, in many cases, at one or more intermediate terminals. Use of Twin Trailers reduces intermediate, and origin and destination shipment handlings.

For the purposes of this discussion, each shipment handling can be considered a "point of exposure" or an opportunity for loss or damage. The routine LTL shipment may have no less than six physical handlings or points of exposure, as follows:

[30]

1. A driver loads the shipment into a pick-up and delivery unit;
2. A dockman unloads the shipment from the pick-up and delivery unit to a dock cart;
3. A dockman moves the shipment from the dock cart to a line-haul trailer;
4. A dockman, at destination, removes the shipment from the line-haul trailer to a dock cart;
5. A dockman, at destination, loads the shipment into a pick-up and delivery unit; and
6. A driver unloads the shipment, delivering to the consignee.

Since Twin Trailers (singly) may be used as pick-up and delivery units and, thence, as line-haul units, their use increases CF's ability and opportunity to eliminate handlings 2, 3, 4, and 5. The use of Semis, on the other hand, generally eliminates the possibility of avoiding any of these handlings.

A "re-ship" or "break-bulk" stage automatically adds two handlings. Use of Twin Trailers permitting "direct" terminal-to-terminal operations minimizes the necessity for re-ship or break-bulk handlings. Use of Semis substantially increases the number of re-ship or break-bulk handlings necessary to provide service between points on CF's system.

CF's experience through the years has demonstrated that very little freight is damaged, lost, or stolen while securely loaded inside a trailer. Conversely, as much as 90% of all loss occurs in terminal handlings. The same is true with respect to shortages and thefts. Although hi-jackings and full truck load thefts have increased in frequency in recent years, CF has had relatively few such incidents. CF's theft losses are classified as "opportunistic." The opportunity is the exposure [31]

of freight to the thief while it is being handled. Elimination of the handling removes most of these opportunities, reduces exposure, and reduces theft losses.

If CF loaded only 45-foot Semi trailers to and from its Wisconsin terminals, CF would necessarily establish "break-bulk" patterns on a more frequent basis than required for movement of shipments in

Twin Trailers. The freight of Wisconsin shippers would be unnecessarily exposed to damage or loss due to increased handlings. It is now where CF is forced, for other reasons as previously explained, to use Semis on Wisconsin freight. Small shipment traffic to and from Wisconsin, if handled only on Semis, would be subjected to at least eight exposure points, i.e., the six previously mentioned plus additional necessary re-ship or break-bulk handlings. Shuttling single Twin Trailer units to and from Wisconsin points reduces re-ship or break-bulk operations outside of Wisconsin and may reduce the number of handlings below the six previously outlined.

TWIN TRAILERS AND CITY PICK-UP AND DELIVERY: CF performs pick-up and delivery service throughout the commercial zones and areas served by its terminals. For example, CF actually picks-up and delivers freight at businesses' and merchants' locations on Wisconsin Avenue in downtown Milwaukee and on State Street in downtown Chicago. Use of line-haul equipment to perform pick-up and delivery service avoids the cost of extra cross-dock handlings and the inherent delays in loading from city vehicles to over-the-road equipment. Use of twenty-seven foot Twin Trailers as single units for pick-up and

delivery in congested city locations is ideal, where 45-foot Semis are both difficult to maneuver [32]

and, in some cases, are restricted in their use. In addition, the size of a single line-haul Twin Trailer is not larger than the loading and unloading facility of any CF customer.

The Twin Trailer unit is better suited than any other equipment to the marketing practices of the public which general commodity carriers serve. As indicated above, the major portion of CF shipments by weight category is are [sic] under 10,000 pounds. These shipments are most expeditiously and efficiently moved in Twin Trailer units. Furthermore, shipments weighing in excess of 10,000 pounds can provide the necessary base, loaded in the nose of a Twin Trailer unit, for a daily "direct" forwarding from an origin terminal to a destination terminal in a Twin Trailer but not in a Semi trailer. Shipments loaded "direct" to destination terminal or customer facility eliminate handling cross-dock, reducing costs of operation and time in-transit.

* * *

[33]

COMPATIBILITY OF EQUIPMENT: Single axle tractor equipment is used with Twin Trailers, both in operations as single units and in combination. Tandem axle tractors are used with Semis.

The variation in equipment limits the flexibility of CF in dispatching over-the-road schedules. For example, if fluctuations in traffic dictate a decrease in the number of schedules operating between Minneapolis and Chicago, the power equipment used on the Minneapolis-Chicago route cannot be utilized on the Minneapolis-Portland route. The former route is operated with Semis; the latter with Twin Trailers. The Wisconsin ban on Twin Trailers on Interstate Highways in Wisconsin is, of course, the only reason for using Semis on the Minneapolis-Chicago route.

[34]

Another example is the situation in which the Detroit-Minneapolis traffic lanes suffer a decline in traffic at the same time as the Detroit-Los Angeles or Detroit-San Francisco traffic lanes experience an increase. CF is now precluded from shifting a schedule from the Detroit-Minneapolis traffic lane to meet needs on the Detroit-Los Angeles or Detroit-San Francisco lanes. The tandem axle power equipment used on the Detroit-Minneapolis

route would be incompatible with Twin Trailers operated over the other two routes.

* * *

AN EXAMPLE - 22 CRATES, WATER METERS, MILWAUKEE TO NOGALES, ARIZONA: On September 16, 1975, the Badger Meter Company ("Badger") of Milwaukee, called CF requesting pick-up service. CF's city dispatcher was advised that Badger had 9,125 pounds of water meters in 22 crates to load for Nogales, Arizona. The city dispatcher recorded the pick-up on his "direct pick-up sheet" and, using a two way radio, contacted a city driver who was delivering a shipment which had been direct loaded to a Milwaukee customer on a line-haul Twin Trailer unit from a shipper in Los Angeles. The city dispatcher instructed the driver to complete his delivery and, then, proceed to Badger Meter Company's location. The dispatcher also

[35]

notified CF's freight operations manager that a 9,125 pound shipment for Nogales, Arizona, was being picked-up in Twin Trailer unit 29-1415.

After picking up eight other shipments, the city driver returned to the terminal at 4:15 p.m.

He was instructed to back his trailer into dock door 48 and bring his bills of lading to the dispatch office. The bills of lading were, then, encoded by a clerk to a door on the dock which corresponded to the destination of each shipment. A photocopy of each bill of lading was made. The originals were sent to the Rating and Billing Department; and the copy bills to the dock foreman.

At this point, two functions were performed simultaneously. Using the copy bills, the dock foreman instructed a dockman/checker to unload eight shipments from trailer 29-1415 at door 48 (leaving the Badger shipment on the trailer) and, following the codes on the copy bills, to move each of the eight shipments to the proper outbound loading doors. Once these shipments were unloaded, he instructed the dockman/checker to begin loading freight for Tucson, Arizona, into trailer 29-1415, behind Badger's 22 crates of water meters. The foreman gave the dockman a loading manifest, which was placed at the rear of the trailer, to record each shipment as loaded.

As this process was going on, using the original bills of lading, the office was rating, billing, and entering data into the computer for tracing, cost accounting, revenue credit, and

other management reports on each shipment loaded into and out of trailer 29-1415.

When all the Tucson freight had been loaded, the trailer was 90% full with 19,281 pounds of freight on board. Trailer 29-1415 was, then, closed and sealed. The loading manifest and all copy bills were taken

[36]

to the dock foreman. Immediately, the dock foreman [sic] notified the terminal line-haul dispatch center that trailer 29-1415 was closed for Tucson, Arizona, with 19,281 pounds. The dock foreman [sic], then, took the manifest and copy bills to the TCON Clerk (closing clerk), in the office. The clerk entered into the computer the trailer number, trailer origin and destination, and the bill pro-number, pieces, and weight for each shipment on trailer 19-1415. A load release showing the trailer number, origin, and destination of the load was fixed to the front of a pouch containing all bills for freight loaded on the trailer. The pouch was then delivered to the line-haul dispatcher.

On September 16, Milwaukee was only able to generate one trailer load for Tucson. However, the use of the Twin Trailer unit enabled it to match trailer 29-1415 with a loaded trailer for Los Angeles, California, and to dispatch both without delay.

The Los Angeles and Tucson trailers were moved as single units from Milwaukee to CF's Illinois staging area, where they were hooked together and moved as a Twin Trailer combination over CF's authorized route to Phoenix, Arizona. Phoenix is a common point enroute to both destination cities. Through coordination by CF's Central Line-Haul Control Center, the Los Angeles trailer was matched with another Los Angeles trailer which had arrived in Phoenix from Kansas City, Missouri, two (2) hours ahead of the units generated at Milwaukee, and was dispatched as a Twin Trailer combination to Los Angeles. The Tucson trailer was matched with another Tucson trailer, which had arrived in Phoenix from Long Beach, California, only 30 minutes ahead of the Milwaukee dispatched units, and was dispatched to Tucson.

[37]

Upon arrival at the CF terminal in Tucson, trailer 29-1415, was put into a dock for unloading. The bills were coded to city delivery routes in Tucson and 10,156 pounds of small shipment traffic was [sic] transferred for delivery to CF customers in Tucson. The 22 crates of water meters were not unloaded but were delivered in trailer 29-1415 to CF's customer in Nogales, by a connectig line carrier.

As a result of using Twin Trailers, a 9,125 pound shipment of water meters moved "direct" from a Milwaukee shipper to a Nogales customer, without reloading or rehandling and without origin or destination terminal handlings. Another 10,156 pounds of small shipment traffic moved "direct" to Tucson, without re-ship or break-bulk handling enroute. Had this freight moved in a Semi, none of the shipments would have been dispatched to Tucson on September 16; and all of the shipments would have experienced a minimum of two additional handlings in-transit.

THE BURDEN OF WISCONSIN'S TWIN TRAILER BAN ON INTERSTATE COMMERCE: The burden consists of elements which can be quantified in dollars as well as elements which cannot be quantified. The sworn testimony of R.E. Wrightson details those elements which can be quantified which include the cost burden arising out of the following elements:

- Item A: The necessity of dividing Twin Trailer combinations for operations to, from, and through Wisconsin.
- Item B: The necessity of operating Semis in lieu of Twin Trailer combinations for Madison and Milwaukee freight.

Item C: The necessity of operating Semis in lieu of Twin Trailer combinations for Minneapolis terminal freight.

Item D: The necessity of operating Twin Trailer combinations over longer mileage routes around Wisconsin rather than over shorter mileage routes through Wisconsin, on freight moving between Eastern areas and the Pacific Northwest.

[38]

The Wisconsin ban on Twin Trailer combinations also imposes nonquantifiable burdens adversely affecting the cost of operation, and the timeliness and adequacy of service. Among these factors are:

1. Increased exposure to freight loss and damage;
2. Increased equipment incompatibility;
3. Forced extension of time for trailer loading and unloading;
4. Forced reduction in over-the-road load weight caused by the necessity to operate Twin Trailers over-the-road as single units and to operate Semis in lieu of Twin Trailer combinations;

5. Forced use of straight trucks for certain city pick-up and delivery services;
6. Forced increase of cross-dock handling at origin and destination;
7. Forced increase of re-ship or break-bulk operations; and
8. Forced use of longer routes around Wisconsin for Twin Trailer combinations.

/s/ John A. Ebeling

[Jurat]

* * *

[Exhibits Omitted in Printing]

SWORN TESTIMONY OF ANDREW N. HAPPER

Filed October 20, 1975

[Caption Omitted in Printing]

* * *

...I am employed as Research Analyst by the Middlewest Motor Freight Bureau, Inc. ("MWMFB").

* * *

[2]

During my employment by the MWMFB, I have been engaged, for the most part, in the analysis of motor carrier costs, revenue needs, and rate structures. Among my duties have been the preparation of exhibits portraying motor carrier rates, financial data, and revenue-cost relationships and their presentation to the Interstate Commerce Commission and various regulatory agencies.

IDENTIFICATION OF MWMFB: MWMFB is one of the ten major rate bureaus which publish interstate rates on behalf of motor common carriers of general commodities. MWMFB operates under approval by the Interstate Commerce Commission under Section 5b of the Interstate Commerce Act, 49 USC 5b. MWMFB publishes rates for some 1,150 common carrier members of the Bureau.

Subject to certain restrictions, MWMFB publishes rates for freight moving:

(1) Interterritorially between all points in Arkansas, Colorado, Illinois, Iowa, Kansas, Louisiana, Minnesota, Missouri, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, upper Michigan and Wisconsin;

(2) Interterritorially between points described in (1) and points in Indiana, lower Michigan, Ohio, western New York, western Pennsylvania, and West Virginia; and

(3) Interterritorially between points described in (1) and (2), on the one hand, and, on the other, points in Alaska and Canada.

MWMFB publishes all the rates and charges for its member carriers for operations within and between the above described territories in some 57 tariffs.

* * *

[7]

While the operations of the principal motor carrier rate bureaus differ slightly, basically they all operate in the same manner. I am thoroughly familiar with the operations of MWMFB and will reflect upon its operations.

* * *

[9]

CARRIER OPERATING COSTS DETERMINE THE BASIC RATE LEVEL: One of the principal activities of MWMFB, as well as other rate bureaus, is the preparation and oral presentation to the Interstate Commerce Commission of evidence in

justification of general increases in motor common carrier rates. Broadly speaking, I would identify two basic reasons which underlie the carriers' need for general rate increases. First are the wage and benefit increases which the carriers and labor negotiate under the terms of governing contracts between the carriers and the International Brotherhood of Teamsters. Second is the effect of inflation, particularly in recent years, upon the non-labor expense items involved in carrier operations. Labor and labor related expenses constitute approximately 66% of the general commodity carriers' operating expenses, while non-labor comprises approximately 34%.

The evidence required by the Interstate Commerce Commission in justification of general increases was not specified until 1964, when the Commission began issuing a series of orders requiring the submission of traffic and cost studies covering the same group of representative carriers and the same time period. The series of order began with LTL COR Rates East and Territories West, 326 ICC 174. Finally, in 1971, the Commission issued an order in Ex Parte No. MC-82, New Procedures in Motor Carrier Revenue Proceedings, 339 ICC 324 and 340 ICC 1.

In MC-82, the Commission set out specific evidence which must be submitted by the various bureaus in justification of proposed increases.

* * *

[11]

Under MC-82, each rate bureau proposing an increase must submit a revenue-expense analysis on its "issue traffic." In preparing a justification for a general increase, MWMFB, as other rate bureaus, applies the Highway Form B formula to determine the total expense for each of the four units of service. These totals are then divided by the service units performed, to arrive at the unit cost. These unit costs are applied to the service units reflected in the traffic study. Thus, a cost for each shipment in the traffic study can be determined. Division of the shipment cost by the revenue earned on each shipment produces a revenue-expense analysis, which is stated as an operating ratio.

ADDED COSTS OF WISCONSIN'S TWIN TRAILER BAN INCREASE SHIPPING COSTS OF NON-WISCONSIN SHIPPERS: Rates to and from points in Wisconsin are published by six of the ten principal motor carrier rate bureaus. These include Central and Southern Motor Freight Traffic

Association, Inc.; Central States Motor Freight Bureau, Inc.; Eastern Central Motor Carriers Association, Inc.; Midwest Motor Freight Bureau, Inc.; Rocky Mountain Motor Tariff Bureau, Inc.; and Southern Motor Carriers' Rate Conference.

The revenue-expense analyses required under MC-82 submitted by each of the six bureaus are based on the total operating expenses of each of the carriers participating in the Bureau's cost and traffic study. No adjustments are made for specific operating conditions or circumstances which require a greater or lesser than average expense for a specific locality.

Consolidated Freightways Corporation of Delaware ("CF") participates in the rates of all six of these bureaus. For calendar year 1974, CF's participation in these six bureaus was as follows:

[12]

Central States	\$ 10,331,156
Eastern Central	\$ 87,921,118
Midwest	\$ 41,367,141
Rocky Mountain	\$224,685,648
Southern Motor	\$ 17,346,139

* * *

This study [from R.E. Wrightson's Sworn Testimony] indicates that CF incurred added costs of operation as a result of Wisconsin's ban on the use of Twin Trailers on Interstate Highways in Wisconsin. The projected annual cost burden, for example, \$2,050,081, for the year 1975, annualized, will be reflected in the total operating expenses of CF and will be prorated throughout the system traffic of CF in the revenue-expense analyses used for rate making purposes. To the extent that these expenses have been incurred in past years, the prevailing rate structures of all six bureaus reflect the added costs of the Wisconsin Twin Trailer ban. These costs cannot be applied solely to the

[13]

costs incurred on shipments moving to or from points in the State of Wisconsin. These added costs will be applied to all shipments handled by CF.

Any attempt to isolate the added costs and apply them only to shipments moving to or from points in Wisconsin would be impossible to accomplish with any degree of accuracy. It is my opinion that it is not possible to isolate these added

costs. The magnitude of the problem of attempting to apportion the added Wisconsin costs only to Wisconsin traffic is clearly demonstrated by CF's extensive participation in the rates of six different bureaus. Only a small portion of the amounts shown, above, reflecting CF's participation in each bureau was earned from shipments moving to or from points in Wisconsin. Of the amounts earned by CF on shipments moving to or from Wisconsin points, a portion was earned for shipments moving in joint-line service with other carriers. The joint-line operations could have occurred either within or without the State of Wisconsin. In such cases, cost apportionment would be a practical impossibility.

In addition, as the result of shifts in traffic, apportionment of added costs such as those incurred by CF on traffic moving to and from Wisconsin, based on a prior year's traffic study, could be totally inaccurate at the time of publication of a general increase. The entire rate structure of general commodity carriers is predicated upon an effort to establish a transportation system. The standardized approach to justification of motor carrier general increases, which establishes a general level of common motor carrier rates, cannot allocate

[14]

the cost of the Wisconsin twin trailer ban to traffic moving solely to, from, or through Wisconsin. The end result is that the added cost to CF must be applied as a system burden and will be allocated to every segment of CF's traffic. Thus, shippers in every section of the country will be required to assume the added cost burden of the Wisconsin twin trailer ban, since the added costs become a part of costs upon which the rates and charges of MWMFB and five other major rate bureaus are based.

In my opinion, the system of common carrier rate making is an essential part of the National Transportation Policy, as set forth in the Interstate Commerce Act, enacted as a part of the Transportation Act of 1940, calling for a "national transportation system." Under this sytem [sic], there is no conceivable means to avoid the extra-territorial effect of the added cost attributed to Wisconsin's ban on Twin Trailer operation on Interstate Highways in Wisconsin.

/s/ Andrew N. Happer

[Jurat]

* * *

SWORN TESTIMONY OF ARNOLD J. FOSLIEN

Filed October 20, 1975

[Caption Omitted in Printing]

* * *

I have been employed by Raymond Motor Transportation, Inc. ("Raymond") since August of 1945. I was initially hired as Safety and Personnel Director. My current position is Vice President for Public Relations, Safety, Insurance and Personnel.

* * *

[3]

IDENTIFICATION OF
RAYMOND MOTOR TRANSPORTATION, INC.

Raymond Motor Transportation, Inc., is a Minnesota corporation with its principal place of business at 1912 Broadway Street N.E., Minneapolis, Minnesota. Raymond is not a large common carrier, but it is the second oldest common carrier in the State of Minnesota. Raymond has various interstate route authorities which stretch the [sic] from the eastern border of North Dakota to and including Chicago Commercial Zone, plus other

points in the Illinois counties of Lake, De Kalb, Kane, DuPage, Cook, Kendall, Will, and McHenry. The Chicago Commercial

[4]

Zone includes portions of the above Illinois counties, and certain points in the State of Indiana. In addition thereto, Raymond has intra-state authority for carrying general commodities in a large portion of the State of Minnesota and limited portions of Illinois. Copies of Raymond's interstate authorities are attached hereto as "Appendix A". [Omitted in Printing] As a common carrier, Raymond has the opportunity and obligation to serve numerous communities. A map and list of points served by Raymond and the location of its terminals is attached hereto as "Appendix B". [Omitted in Printing]. As can be observed from reviewing "Appendix B", Raymond provides direct service to numerous small communities. Many of these towns and their citizens depend solely upon Raymond and other trucking firms to give them access to markets for their products and to provide them with access to merchandise produced in other areas. The general commodities shipped by Raymond include an array of products which are used by every person in his daily life. They include perishable foods, materials and supplies

used by the United States Department of Defense, manufactured goods, household appliances [sic], raw and processed agricultural [sic] and forest products, building materials, clothing, bassinets, coffins, paper, printed matter, and hospital supplies. Many of these communities [5]

have been long abandoned by the railroads, and it should also be noted that the railroads, for the most part, no longer accept less than car load shipments.

Shipments to and from these points are generally in small quantities. Indeed, a review of our most recent records shows that from January 1, 1975, through September 5, 1975, Raymond shipments by weight are as follows:

WEIGHT OF INDIVIDUAL SHIPMENTS

	Less than 500#	500-1999#	2000-9999#	Over 10,000#
# of shipments	132,849	38,064	11,617	3,396
% of total	71.5%	20.5%	6.2%	1.8%
% of wgt. shipped	11.1%	18.2%	23.4%	47.3%
% of revenue	25.4%	25.4%	24.3%	23.6%

In the trucking industry, shipments of over 10,000 pounds are considered to be truck loads. From a review of the above chart, it is clear that 98.2% of the shipments transferred by Raymond in the first nine periods of 1975 were less than truck load shipments. Moreover, while 71.5% of the shipments weighed less than 500 pounds, those shipments represented only 11.1% of the total

[6]

weight shipped and only 25.4% of the total revenue received by the trucking firm. On the other hand while 1.8% of the shipments weighed more than 10,000 pounds, those shipments represented 47.3% of the weight shipped and 23.6% of Raymond's total revenue. These facts have particular significance with respect to the advantages that twin trailers provide to Raymond and the shipping public, which advantages are denied by the Wisconsin ban on twin trailers as is discussed below.

Raymond has no intrastate authority in Wisconsin, but it is authorized to travel through Wisconsin on its interstate operation between Minnesota and Illinois. This authority was granted pursuant to Certificate of Public Convenience No. MC66788 Sub 18 by the Interstate Commerce Commission.

* * *

[7]

Raymond conducts no transportation business in the State of Wisconsin. Its only contact with Wisconsin is the passage of its vehicles through the state on Interstates 90 and 94 enroute between Minnesota and Illinois. Raymond has no terminals in Wisconsin, and its vehicles' only stops in the State of Wisconsin are for eating and for fuel and equipment checks at truck stops adjacent to the freeway at New Lisbon and Stoughton, Wisconsin.

The run between Minneapolis and Chicago takes approximately 10 hours including time for pre- and post-operating inspections of the equipment by the drivers, and equipment, lunch or coffee stops. Raymond has tire banks at both New Lisbon and Stoughton, Wisconsin.

SAFETY

We are very concerned with human safety at Raymond and our excellent safety record evidences that concern. We are, of course, required to meet numerous safety standards promulgated by various governmental agencies. These agencies include the United States Department of Transportation, Bureau of Motor Carrier Safety; the United States Department of Labor, Occupational Safety and Health Administration; and the regu-

[8]

lators in each state, as well as local governments.

We provide extensive training on safety for our drivers and other employees. Each of our drivers must have a physical before being employed by us as well as at least every two years thereafter. In the event that a driver has any particular physical problems, he must have additional physicals as often as medical advice deems necessary. We keep a close watch on each driver's safety and accident record. When necessary, we discipline our drivers, up to the point of discharge if a driver shows a disregard of safety and the rights of others.

We also keep close watch on the maintenance of our equipment. All tractors and trailers are checked continually. The driver inspects his tractor and trailer before operating it and also after completing his run. In addition, before a new driver operates the tractor and trailer, the maintenance people inspect them.

* * *

[9]

While we are always attempting to improve

[10]

safety conditions, we are pleased with the accident record of our drivers. We have a strict company policy that drivers must make an accident report on any incident whatever its significance.

We began using twin trailers in the State of Minnesota and in the bordering city of Fargo, North Dakota, on July 6, 1973. By July 31, 1975, the twin trailer combinations had traveled nearly 1.5 million miles, and we have not had a single collision with them.

* * *

[11]

Use of twin trailer combinations in our over-the-road operations has been limited to the State of Minnesota and the City of Fargo, North Dakota. We use twins singly in Minneapolis and St. Paul to pick up and deliver freight. Similarly, in Illinois we use twins individually for the pick up and delivery of freight. Our primary use of the twins in combination is to carry freight between the Minneapolis terminal and points in out-state Minnesota and Fargo, North Dakota, where their use is permitted. "Out-state Minnesota" refers to those portions of the state which we serve other than the Minneapolis-St. Paul metropolitan area.

This service area is primarily west and north of the metropolitan area. Some of the larger communities in out-state Minnesota where we utilize twin trailer combinations are St. Cloud, Fergus Falls, Alexandria, Moorhead, Little Falls, Long Prairie, Sauk Center and Glenwood.

One of the greatest advantages of twin trailer [12] combinations to Raymond is that we are able to peddle freight off these units in outlying cities. We often load 27-foot trailers at our Minneapolis terminal for distribution of the freight directly off the 27-footers in many of the communities named in the previous paragraph and at various smaller towns located nearby, without having to unload and reload at a terminal in any of the respective communities. In addition, we are often able to drop off one of the 27-foot trailers at our terminals in these outlying communities for unloading and handling of small deliveries, and, at the same time, directly deliver the larger loads off the other 27-footer to consignees in the same area without running that freight over the dock at such points. Previous to our introduction of twin trailers in Minnesota, we were not able to avoid such handling in as many instances.

The avoidance of handling saves us the expense and extensive time involved in unloading the trailers and then sorting and reloading on to other trailers for delivery to consignees. The amount of time involved in unloading and reloading freight, of course, varies with the type of freight involved. However, it is not uncommon for a 40-foot trailer holding 30,000 pounds of less-than-truck-load freight to require 10 man hours of labor to unload, sort and reload. Our current wages to [13]

dock hands, including fringe benefits, are approximately \$9.80 per hour. Thus, it can be seen that unloading and reloading is very expensive to a trucking firm. It can amount to over \$90.00 per 40-foot trailer. Furthermore, by avoiding such handling, we are able to provide consignees with faster delivery and reduce the opportunity for damage, misshipment and pilferage losses to occur. Damage, misshipment and pilferage losses increase with the number of handlings that are involved.

Even though the use of twin trailer combinations in Minnesota is generally restricted to four-lane highways and certain designated two-lane highways which provide access to and egress from four-lane highways, we are able to use twin trailers to our advantage in serving many of our

points which are accessible only by two-lane highways. We are able to hook together two 27-foot trailers at our Minneapolis terminal for delivery to towns in out-state Minnesota which are located in close proximity to one another. When the twin combination reaches the end of the four-lane highway, the twins are split at our terminals, and the two 27-foot trailers are then hauled separately to their respective destinations.

For example, twin combinations are often driven to Little Falls where the back trailer is dropped at our terminal there, and the tractor and front trailer proceed

[14]

another 30 miles north to Brainerd, Minnesota. Our local cartage operator in Little Falls can then hook its tractor to the back trailer and deliver the freight in that area. In the meantime, the tractor which has proceeded to Brainerd with the front trailer will drop that trailer off in Brainerd, and hook on another single twin trailer which has been loaded with freight for Minneapolis or Chicago. This tractor and single 27-foot trailer will then return to Little Falls and hook on a second twin trailer loaded with freight for Minneapolis or Chicago. The twin combinations will then travel from Little Falls to the Minneapolis terminal. At

the Minneapolis terminal, the twins are either split and unloaded, or if possible, the freight may be peddled off the trailers individually to various consignees in the the [sic] Minneapolis area.

The twins are also used in this manner where twin trailers are bound for: Long Prairie and Wadena; Glenwood and Morris; Fergus Falls and Breckenridge, Wahpeton or Pelican Rapids. The advantage of being able to split the trailers in this manner is that the delay inherent in having a truck and driver sit at a point of first destination to be unloaded before proceeding to the second point is avoided.

* * *

[16]

The fact that 27-foot trailers hold less freight individually permits us now to provide those cities which we can serve by twin trailers with more rapid service as we do not have to wait for the additional freight before the trailers are full.

BURDENS OF THE WISCONSIN PROHIBITION AGAINST TWIN TRAILERS

The Wisconsin prohibition against twin trailer combinations poses a number of heavy burdens on Raymond's operations. This is true because while

Raymond is permitted to use twin trailers in Minnesota, Illinois and those portions of North Dakota which it serves, they are not able to use them through the State of Wisconsin. A significant portion of our business is between the Chicago Commercial Zone and points in Minnesota, and also Fargo, North Dakota. Because of the Wisconsin prohibition, we are unable to utilize our twin trailers between points in Minnesota and North Dakota and Illinois. These units are our most efficient equipment and the inability to employ them in Wisconsin costs us and our customers dearly. The cost is in dollars for Raymond and in dollars, [17]

service and market access for Raymond's customers.

Because of the Wisconsin prohibition, it is necessary for Raymond to make more trips through Wisconsin than would be necessary if twin trailer combinations were permitted. At the present time, we are using 40-foot trailers with tandem tractors in our operations through Wisconsin between Minneapolis and Chicago. If we were permitted to use our twin 27-foot trailer combinations between Minneapolis and Chicago through Wisconsin, we would be able to reduce our number of trips significantly. This is true because in the business

of transporting general commodities, in which we engage throughout our system, the important factor is cubic capacity. Most general commodities shipped are of low density. Only occasionally, in hauling these general commodities, do our trailers approach the weight limits. Indeed, for the period January 1, 1975 to September 5, 1975, our records show that even though gross weight regulations (73,280 pounds) allow for a payload of approximately 42,000 pounds, our average payload was 24,789 pounds.

The difference in the hauling capacity of the twin 27-foot trailer combinations and the 40-foot semi-trailers is approximately one-third. The twins and 40-foot trailers are of the same height and width, but the variance is in their length. There are approximately 39

[18]

1/2 feet of usable lineal space in a 40-footer and approximately 53 feet of usable lineal space in a twin combination. Thus, the cubic capacity of the twin combinations is about 34% greater than the 40-foot trailers. This being the case, under optimal conditions, three twin trailer combinations can carry what it would take four 40-foot semi-trailers to carry.

Raymond averages approximately 12 trips per day, each way, between Minneapolis and Chicago through Wisconsin. We operate on a 5-day week, and the average number of trips on a weekly basis is 60 each way of a total of 120. Thus, if the optimal conditions were reached and we were running twins instead of 40-foot trailers between Minneapolis and Chicago, we would be able to reduce our total of 120 trips per week by 30 trips per week. It would take only 90 trips in the twins to carry the same amount of freight as is currently being carried by the 40-footers.

While it is possible that we would be able to reduce our total number of trips between Minneapolis and Chicago on a weekly basis by 30 through the use of twin trailer combinations instead of 40-foot semi-trailers, as a practical matter, it is likely that the full number could not be reduced and that we would continue to use some 40-foot semi-trailers. This is true because on some

[19]

occasions, articles longer than 27-feet are hauled by Raymond, and in some instances, a shipper might require a 40-footer be used to haul his freight. Moreover, on rare occasions, extremely dense freight is hauled, and due to weight limitations, we could not take advantage of the additional cubic capacity which twins afford.

* * *

[20]

A number of savings would result from the use of twin trailer combinations between Chicago and Minneapolis. These potential savings include a reduction in fuel costs, labor costs, damage, misshipment and pilferage costs, accident costs, and capital costs. In addition, we would be able to provide faster shipping service to our customers.

The applicable records maintained by Raymond reveal that our experience with twin combinations and 40-foot semi-trailers is that the tractors hauling them consume approximately the same amount of fuel -- 4.6 miles/gallon. While I am not a physicist or mechanical engineer, I understand that the reason the mileage is the same despite the fact that twins can carry more cargo is that the tractors used for hauling 40-foot trailers have two power axles and the tractors used for hauling twins have a single power axle. I understand the second power axle on tractors hauling 40-footers creates additional resistance and requires additional horsepower for its operation.

I estimate that on an annual basis it would be possible for Raymond to save \$63,180.00 on fuel costs if

[21]

we were permitted to use twin trailers between Minneapolis and Chicago. I have attached hereto "Appendix F" [Omitted in Printing] which was prepared under my supervision and direction and provides the basis for my estimation of the fuel savings. This estimate assumes that only twins would be used on our route between Minneapolis and Chicago and therefore represents the optimal use of twin trailers. This savings, as a practical matter, would be reduced by the continued use of some 40-foot semi-trailers between Minneapolis and Chicago.

Not only would Raymond benefit from the reduction in fuel costs, but also shippers using Raymond and the general public would ultimately benefit from the lower fuel costs. This is true because the rates or tariffs common carriers may charge are based in large part upon their costs.

The use of less fuel by Raymond would also be beneficial to the general public as a matter of fuel conservation and reduction of air pollution. In addition, if fewer vehicles are used on the road by Raymond and other trucking firms, noise pollution which might result from the operation of such vehicles would also be reduced.

Raymond would also be able to reduce its labor costs if twins could be used through Wisconsin on Ray-

[22]

mond's route between Minneapolis and Chicago. First, with fewer trips, our labor costs for drivers on that route would be reduced. Second, our labor costs for dock handling would also be reduced because of the reduction in loading and unloading that is afforded by the flexibility of twin trailers.

* * *

Despite the fact that the introduction of twins does to a certain degree provide savings in manpower, it should be noted that the Minnesota Teamsters United Council No. 32, representing all of the Teamster locals in Minnesota, has supported the utilization of twins in Minnesota. Attached hereto as "Appendix H" [Omitted in Printing] is a copy of

[23]

an article which appeared in the February 15, 1973, edition of the "Minnesota Teamster" in which the Teamster position on twin trailers is set forth. The Teamsters represent our Minnesota drivers and freight handlers. They recognize that twins are

more practical and efficient and will improve trucking operations, and will create additional opportunities for their members in the future:

* * *

[25]

Raymond's current Minnesota operations are also significantly hampered by the prohibition against twin trailer combinations by the State of Wisconsin. We use our 27-foot twin trailer combinations extensively in out-state Minnesota. When we use our twin combinations to pick up freight in out-state Minnesota which is destined for Chicago, it is now necessary to unload in Minneapolis and then transfer the freight to 40-foot trailers in

[26]

order to pass through the State of Wisconsin. This often happens with freezers and refrigerators we ship for Franklin Manufacturing which is located in St. Cloud, Minnesota. We incur similar problems with the shipping of assembled kitchen cabinets for Medallion Kitchens which is located in Fergus Falls, Minnesota. Not only do we incur the additional costs and delay of being required to unload and reload the freight at our terminal in Minneapolis, which costs and delay could be avoided if twin

trailer combinations were permitted to be used through the State of Wisconsin, but also additional dock space is necessary which would not be required if this handling could be avoided. Furthermore, moving freezers, refrigerators [sic] and kitchen cabinets cross-dock is not only costly but also often involves hard physical labor which could easily be avoided but for the Wisconsin ban on twin trailers on the Interstate Highways in Wisconsin. The increase in handling which the Wisconsin prohibition of twin trailer combinations necessitates also hampers Raymond's efforts to reduce its damage, misshipment and pilferage losses. These losses occur primarily during dock handling. If we could use twins through Wisconsin, we would be able to reduce our dock handling and hopefully these losses.

Futhermore, with respect to tractor and trailer accident losses, such losses vary with the number of trips and the total mileage. We could expect that by using twins between Minneapolis and Chicago through the State of Wisconsin our exposure and hence accident losses on that route would be reduced. Similarly, with the reduction in the number of miles traveled, we would also probably be entitled to a reduction in our insurance premiums.

[27]

Finally, it would seem very possible that Raymond would be able to reduce its capital investment in trailers if it were not for the Wisconsin prohibition of twin trailer combinations. The reduction in handling which twins afford should reduce the number of trailers sitting idle at loading docks, and we would be able to more efficiently employ our equipment.

My testimony is directed to Raymond's situation, but if the Wisconsin ban against twin trailer combinations were lifted, numerous other motor carriers would also benefit. In turn, shippers would benefit from lower rates and ultimately, the general public would benefit as well by being able to purchase goods that have been shipped at a lesser price than would be the case if the shipping costs were higher.

/s/ Arnold J. Foslien

[Jurat]

* * *